HISTORY OF MONEY IN THE BRITISH EMPIRE AND THE UNITED STATES

HISTORY OF MONEY IN THE BRITISH EMPIRE & THE UNITED STATES

BY

AGNES F. DODD

LONGMANS, GREEN, AND CO.
39, PATERNOSTER ROW, LONDON
NEW YORK, BOMBAY AND CALCUTTA
1911

PREFACE

THE aim of this book is to give a short general history of money in the English-speaking countries—in the British Empire and the United States. The student is better provided with text-books on American than on English monetary history For the latter there are at his disposal, on the one hand, books on general political and economic history of which the history of money forms comparatively only a small part, and, on the other hand, books on the various branches of the subject—on coins, prices and banking, but he finds a real difficulty in getting in any convenient compass a general knowledge of the financial development of the country.

Yet the history of money has an interest of its own; its study in many cases throws fresh light on historical problems, and in its bearings on political and economic history it has an importance which, from lack of definite knowledge on the subject, the student is often apt to overlook The problems that confronted a mediæval statesman, in so far as he had to deal with finance, can only be understood if the principles underlying mediæval finance are grasped—the impossibility, for instance, of keeping coin in the country under a badly regulated and imperfectly understood bimetallic system, with the result that one or the other, and occasionally both of the precious metals were constantly disappearing from the circulation, the constant struggle against false coiners and money-dealers, who were always on the look-out to make their private profit by exporting and melting down the good coins and flooding the country with debased money,

the uncertainty of the value of the currency, the impossibility of getting any adequate supply of small coin before the distinction between legal tender and subsidiary coins was understood. These were constantly recurring difficulties which the imperfect financial knowledge of the time rendered practically insuperable.

The financial development of the colonies and of the United States offers problems of a different character. In a newly settled country the chief difficulty was, in the first place, to get a currency at all, and in the second, to adapt and expand it to meet the needs of a rapidly growing industrial community The solution of the latter part of the problem was generally found in the extensive use of paper money, because paper money can be rapidly and easily increased in quantity with practically no initial expense, and the danger of over-issues, and consequently of depreciation, that resulted from this facility and from the lack of effective regulation was not realized at first. It is in the United States, where the most varied and extensive experiments were made in the use of paper money, where it so completely superseded specie in popular estimation that the necessity of a specie basis was for a time lost sight of, and where the division of authority between the Federal and State Governments made regulation especially difficult, that both the benefits and the dangers attending the development of a paper currency are most clearly illustrated. The study of the financial history of the past century shows (1) the predominance of the single standard as opposed to bimetallism and the general adoption of gold as the sole standard of value in preference to silver; (2) the advisability, as seen in the case of the English colonies, of assimilating the currency system of a small State to that of the larger countries adjoining it; (3) the necessity for regulating paper money and providing for its convertibility into specie; (4) the danger of building up a great mass of financial operations, as in 1907, on a substructure of credit alone, unsupported by an adequate gold reserve.

CONTENTS

PART II

HISTORY OF MONEY IN THE UNITED STATES

CHAPTER I

CHAPTER II

CHAPTER III

CHAPTER IV

CHAPTER V

INTRODUCTION

MONEY has been defined by Walker as that which everyone receives without the slightest reference either to his own need or to the credit of the person who offers it. "When," he says, "an article reaches this degree of acceptability it becomes money, no matter what it is made of and no matter why people want it." It is only among primitive races that money in this wide sense of the term does not exist, and that trade is carried on under a system of barter, when an article is exchanged against another without any system, and the transaction is regulated only by the relative necessities of buyer and seller As society begins to develop and before any regular trade is possible, the need is felt for some commodity which can be used as a medium of exchange and a common measure of value; and as soon as some article is valued, not merely for its own sake but because it has exchange value as well, money may be said to exist, though only in a rudimentary form. At first some commodity easily obtainable, in common use and having a value in use, was taken as money—generally some ordinary necessary of life, as in very early times superfluities did not exist; thus corn was used by some races, oxen by the Teutons, Greeks, and Romans, dried fish in Ireland, etc. When some commodity had a recognized exchange value, it was possible for wealth to grow up and for a store of value to be formed, for a man now had an inducement to accumulate more goods than he wanted for his own consumption.

The earliest commodities used as money only fulfilled to a very limited extent what are now considered to be the functions of money; for instance, corn was liable to deteriorate with time, and oxen could only be used for large transactions. Hence a tendency arose to substitute ornaments and the metals of ornament for the necessaries of life—as, for example, the silver bracelets of the Hindoos and the golden armlets of the Anglo-Saxon nobles, which were of a recognized weight and standard of purity. There seems to have been a unanimity of opinion among all races on reaching a certain stage of development that metals are the most suitable commodity to be used as money, and iron, lead, tin, and copper have all been placed under contribution for this purpose, but their exclusive use as money is always a sign of a low stage of commercial development. With all races, as civilization increased, gold and silver took predominance over other metals, for they possess in a high degree all the qualities that are now recognized as essential for money—"Gold and silver alone are of small volume, of equal goodness, easy of transport, divisible without loss, easily guarded, beautiful and brilliant and durable almost to eternity" (Cantillon). It was only gradually, however, that the precious metals superseded the earlier forms of money. Among the Greeks, for instance, long after the use of metallic money had become general, the term "ox" was still used for money, though it now referred not to the ox itself, but to a certain weight of metal which had represented its value in earlier days. For a long time, too, the precious metals were very scarce, and money of account was largely used; that is to say, in early times very few coins were struck, and the greater number of denominations refer, not to actual coins, but to a certain weight of metal, and money was used as a measure of value much more generally than as a medium of exchange. It was a long time before the ordinary

trade transactions of every-day life were conducted by means of coins, and the use of paper money and development of credit belongs to a later period still.

What is meant by the value of money is its purchasing power over commodities, and the purchasing power of money, or the scale of prices, is to a great extent a question of supply and demand. The supply of money is the whole amount of money in circulation at any given time, and when the supply is small in proportion to the stock of commodities in the market, the value of money will be high and prices will be low, and as the supply of money increases in proportion to the stock of commodities, the value of money will go down and prices will rise: thus the value of money varies inversely with prices Another factor which affects the value of money is rapidity of circulation, or the efficiency of money—that is, the number of transactions performed by a certain amount of money in a given time, or, in other words, the number of times it changes hands. Increased rapidity of circulation has the same effect as an increase in the supply of money, and tends to lower prices, because it increases the amount of work that a given quantity of money can perform The value of money depends only to a lesser degree on the cost of production of the precious metals, and to a greater degree on supply and demand The working of gold and silver mines has always been carried on more or less as a speculation, for, though men have been attracted to it in the hope of making large gains, in many cases mines have been worked at a financial loss; moreover, the increase in the amount of precious metals is generally so slight in proportion to the whole stock of metal in circulation that the effect of new supplies on the value of money is only gradually felt

In tracing the history of money in England several aspects of the subject have to be clearly distinguished:—(1) the history of the metallic currency; (2) the history

of the metals and of the rates of exchange with other countries; (3) the history of paper money; (4) the history of prices as far as they are affected by changes in the circulating medium

In dealing with the currency it is necessary to take into account not only the denominations of the coins, but the quality and quantity of the metal contained in them, the methods of coining, and the gradual development of paper money and credit. The history of the metals deals with the relative importance and value of silver and gold, the relation between the market value of bullion and the arbitrary value placed on it by Mint regulations, and the effect of foreign exchanges on the English coinage, for after the development of a gold coinage in the fourteenth century it is impossible to treat the English monetary system altogether apart from the monetary systems of the rest of Europe. A great many factors, other than changes in the circulating medium, affect the history of prices, and it will only come within the scope of this work to deal with those aspects of it directly connected with the currency question.

PART I

HISTORY OF MONEY IN THE BRITISH EMPIRE

CHAPTER I

FROM THE EARLIEST TIMES TO THE THIRTEENTH CENTURY

THE art of coining in this country dates from a very early period, and must have been known in pre-Roman times, at least a hundred and fifty years before the Christian era. Julius Cæsar, in his account of Britain, refers to the coinage, and, though the exact meaning of the passage has been much disputed, it leaves no doubt that a coinage existed in gold and in some less valuable metal—either bronze or copper—and that iron bars adjusted to a certain weight were also in use The practice among the different tribes must have varied a great deal, and coinage was only used by the tribes of the South and East, who were at a more advanced stage of civilization, a modified form of barter still lingering on in the West. The British coins were small thick coins, modelled on Greek originals.

Either from the visits of the Phœnicians or through trade with Gaul, the Britons had become acquainted with Greek money, and the coins struck by them seem to have been copied roughly by native craftsmen from Gallic imitations of the gold stater of Philip of Macedon. When the Roman occupation began with the invasion of Claudius, 43 A.D., large quantities of Roman coin were imported and Roman mints were established in the country, probably as early as the second century after Christ, for the coinage of

gold, silver and copper money. The use of the Roman currency did not entirely cease with the close of the Roman occupation, for, as the Anglo-Saxons had as yet no special coinage of their own, Roman copper money remained in circulation. In some of the early Anglo-Saxon laws the Roman solidus was used as the basis of calculation in estimating values, though in the West—the most backward part of the country—there is evidence that computation of payments by cattle had not entirely disappeared.

The first period in the history of the monetary system extends from early Anglo-Saxon times to the reign of Henry III—the currency being affected only to a very slight degree by the Norman Conquest—and the chief characteristics of the coinage during this time were (1) that the metal used was almost exclusively silver, (2) that money of account played a very important part in the monetary system, and (3) that coins were scarce and very few denominations were struck.

The use of silver for money in preference to gold was a very general characteristic of the Teutonic races in the early Middle Ages, probably because it could be obtained more easily and in greater abundance, especially after the German mines had been reopened by Charlemagne in the early part of the ninth century: silver was found as well in England, Bohemia, and other districts. Consequently, though a few coins of low value were struck in baser metal, silver was almost exclusively used for currency, the few gold coins that remained in circulation, or that were occasionally struck, bearing too high a value to be conveniently used for purposes of trade. Another theory which has been put forward by Del Mar to explain the almost exclusive coinage of silver is that after the time of Julius Cæsar, when the gold aureus was made the sole legal tender coin of the Roman Empire, the striking of gold coins became the sacred prerogative of the

sovereign pontiff, only the coinage of silver being thrown open to secular rulers, and that this prerogative of the Roman Emperors was continued in mediæval times by the Byzantine Emperors, whose exclusive right to coin gold was acknowledged by the Christian princes of Europe until Byzantium was taken by the Crusaders at the beginning of the thirteenth century. Now, though it seems hardly likely that the rulers of Europe would respect this privilege in a sovereign whose political supremacy they did not acknowledge and whom they regarded as a heretic in religion, yet it is probable that the tradition, handed down from the time of the Roman Empire, that gold was money in a special sense, never quite died out in Europe. Moreover, though the coinage of gold almost ceased in Western Europe after the fall of the Roman Empire, gold was the standard metal used by the Byzantines and the Arabs, who were the only people skilled in the art of coining during this period, and gold coins struck by them had a recognized value, and passed current all over Europe. The coinage of Gaul was of gold until the fall of the Merovingian dynasty in the eighth century, and occasional gold coins were struck during the Anglo-Saxon period in England. The ratio of the value of gold to silver during this time varied very little, remaining fairly stationary at 12 . 1 in the countries that had come under Roman influence, and at 8 . 1 among the Northmen and Arabians , in the English monetary system there were traces of both these ratios, but the Roman system finally prevailed.

During this period, when coin of all sorts was very scarce, it is probable that in a large number of transactions actual coin was not used at all, though the value of the goods to be exchanged would in all cases be estimated in terms of money. Hence the part played by money of account was very important , the pound, the shilling, the mark, the mancus, the ora, were all terms used in esti-

mating values, and represented a certain weight of metal, though no coins were struck corresponding with these amounts. The Roman system of computation by £ s. d. (libra, solidus, denarius) was adopted by all European countries after they had accepted Roman Christianity; in France it was first adopted by Clovis, in England by Ethelbert of Kent at the beginning of the seventh century. In England the pound weight of silver corresponded to the Roman libra. This pound was soon known as the Pound Tower, because the chief mint of the country was established in the Tower, and by it the weight of English coins was regulated. From very early times until 1527 it contained 5,400 grains, and was divided into 12 ounces of 20 pennyweights each; thus there would be 22½ grains in the pennyweight. The Pound Troy, which superseded the Pound Tower in 1527, contained 5,760 grains; hence it was ¾ ounce heavier than the Pound Tower, and the pennyweight contained 24 grains. The Roman solidus was a gold coin weighing 18 grains; the shilling, which corresponded to the solidus, was a division of the pound weight of silver, and, though there may have been a few gold shillings in Anglo-Saxon times, no silver shillings were struck until the reign of Henry VII. The penny, which corresponded to the Roman denarius, was a silver coin representing the two-hundred-and-fortieth part of a pound, and the number of pence in a pound was always uniform. The value of the shilling, on the other hand, varied considerably; in the countries that followed Roman traditions most closely the pound consisted of 20 shillings containing 12 pence, whilst the Goths and the Arabians divided the pound into 48 shillings of 5 pence each. Traces of both systems are found in England, as well as the Anglo-Saxon division of the pound into 60 shillings of 4 pence each. Thus there were three different methods of computing money in Anglo-Saxon England: in Wessex the pound contained 48 shillings, in Mercia 60, and in

most of the other districts 20 shillings; it was not until after the Norman Conquest that the Roman system was uniformly adopted.

The mark was a weight representing two-thirds of a pound. How it came into vogue is uncertain, some authorities leaning to an Oriental and others to a Teutonic origin. According to the former theory, the mark weight, coming probably from Alexandria, made its first appearance in Europe at Venice in the seventh century, where it was used exclusively for weighing metals and not for ordinary merchandise, and in this capacity made its way in the ninth century through Germany and Scandinavia to England, where it is first mentioned in the treaty between Alfred and Guthrum in 879. According to the latter theory, which is advanced by Thorold Rogers, the mark was used as a unit of weight for money instead of the libra by those Teutonic races which had not come under Roman influence. Del Mar considers that the mark among the Goths represents the libra of the Theodosian code, but that, as the ratio of gold to silver among the Goths was 8 : 1 instead of 12 : 1, the silver mark of money was two-thirds of the Roman libra of money, and that the mark was originally the Gothic equivalent, at the ratio of 8 : 1, of the Roman libra. In the Middle Ages the mark seems to have been chiefly used in those places that had commercial relations with Venice, and its use rapidly increased as trade with the East developed In Venice in the ninth century gold and silver coins known as marks were struck, but elsewhere the mark remained as money of account representing a certain weight, which was always two-thirds of a pound.

The mancus was of Arabian origin, and, though there were some coins of that denomination, there is no evidence that any of them were struck in England, where it was simply a money of account, valued at the eighth of a pound. Archbishop Aelfric, writing at the end of the

tenth century, gives 30 pence as the equivalent of the mancus, and it was estimated at this value as well in the laws of Henry I.

The ora was of Danish origin. The Danes when they settled in England used the Anglo-Saxon penny, but reckoned in oras, at the rate of 12 or 15 oras to the pound. The ora is mentioned in Domesday, where it is valued at 20 pence, but it is not certain whether an actual coin or a certain weight of metal is meant.

Though there was very little coin in actual circulation in the Anglo-Saxon period, the use of money must have been known from very early times, for it was possible to atone for most sorts of crimes by a money compensation, and the runic inscriptions on many of the early Anglo-Saxon coins point back at any rate to pre-Christian times. Some coins may very likely have been brought over from the Continent when the Teutons first settled in the country, and there was an indigenous coinage as early as the seventh century.

The earliest coins struck were the sceat (sceatta) and the stycca. The word "sceat" is Norse, and means treasure, value, or payment, reappearing in the mediæval words "scot" and "shot." The sceattas were small, thick coins, weighing about 18 grains, and were struck both in gold and in silver, the gold sceat being sometimes known as the thrymsa. The value of the sceat is difficult to ascertain, but it is thought that the silver sceat was worth a little less than a penny.

The sceat forms the connecting link between the Roman coins and the Anglo-Saxon penny. The earliest types were taken from those of the usurper Maximus, though some of them bore runic inscriptions; the later types were taken from Frankish models and were inscribed with Roman letters, though these letters were generally so badly formed as to be almost illegible, and to suggest that the engraver was not acquainted with the Latin alphabet.

Some of these coins are inscribed with the names of Saxon princes, and a few bear the legend "Lundonia"—the only case in which the name of a town appears on them. Sceattas do not seem to have circulated north of the Humber.

The stycca was a coin of small value, struck in base silver and copper, which circulated only in Northumbria, it was issued both by the Kings of Northumbria and by the Archbishops of York Its exact value as compared with other coins is not known.

The sceat and stycca remained in circulation until the ninth century, when they were gradually superseded by the penny. The penny—derived variously from the West German panna (German pfanne), a "pan," or from pand (German pfand), "pawn," or "pledge"—was a silver coin weighing 22½ grains, thinner and broader than the sceat, and 240 pence were contained in the pound.

The penny was first struck by Offa, King of Mercia, in the last part of the eighth century, and, introduced first into Kent, which was then subject to Mercian supremacy, it soon spread into East Anglia and Wessex. The coins were generally inscribed on one side with the name and title of the king or archbishop by whose authority they were issued, and on the other with the name of the moneyer—the person by whom the coin was made. The penny was modelled on the denarius of the Franks, which Charles the Great had made the monetary unit throughout his dominions. The substitution of the penny for the smaller and thicker coins of earlier days soon spread rapidly over Europe, and for some centuries pennies were almost the only medium of exchange in Northern Europe. The halfpence and farthings are mentioned in the Anglo-Saxon paraphrases of the Bible, but there is no sure evidence that farthings were struck; halfpence were struck by the Kings of Wessex from the time of Alfred, and are mentioned in the laws of Cnut in payment of

fines. They were not struck after the Conquest until the reign of John.

The monetary system of later Anglo-Saxon and Norman times shows a curious mixture of foreign influences. The Roman system of £ s d., the Frankish penny, the Danish ora have already been mentioned, and to these must be added the Arabian and Byzantine coins. Traces of Arabian influences can be seen in most mediæval currencies, for the Arabs were the only skilled moneyers in Western Europe; the standard of fineness for the metal, the terms "mancus" and "carat," the flat, thin form of the coin, seen in England first in the penny, were all Arabian. The only Arabic coin known to have been struck in England was the gold dinar of Offa of Mercia, valued at 34 or 36 pence, and bearing a Mohammedan inscription in Arabic letters, and it is not certain whether an Arab moneyer was employed by Offa or whether an Arabic coin was copied by English workmen These coins were very scarce, and were probably struck to enable the king to fulfil his promise to the pope to send to Rome an annual tribute of 365 gold mancuses Other Arabic coins may have been struck, but no traces of them remain. Byzantine influence is seen in the gold bezants of Constantinople, valued at 40 pence, which were current all over Europe The silver coins of France, Venice, and other States were in circulation, and in Norman times were rated by proclamation at something near their bullion value.

The Norman Conquest had very little effect on the monetary system. The division of the pound into 20 shillings of 12 pence became general, and other modes of computation disappeared; a certain number of foreign coins always remained in circulation, but the penny was for the next two hundred years practically the only coin struck by English mints, and was the staple coin in circulation. After the Conquest the standard of weight and

fineness, though not altered, became more important and more generally known. The standard of fineness for silver was 11 oz. 2 dwts. of fine silver to 18 dwts. of alloy, the standard of weight for the coins was 22½ grains, and pennies struck in accordance with this standard of weight and fineness were known all over Europe as Sterlings or Easterlings The origin of this term is uncertain Del Mar in "Money and Civilisation" traces it back to the Ostrogoths, who on the fall of the Roman Empire became heirs to the silver mines of their country, and as a result "the purity and uniformity of their coinage, coupled with the trading activity of the owners, gave to the Easterling pennies a currency through North Europe which was refused to the doubtful and debased currency of the Empire." The sterling pennies of Saxony certainly formed the basis of the monetary system of Charles the Great, and later on in the Middle Ages the term Easterling was used all over Europe to designate the pennies of England. The standard weight and fineness of the penny was maintained for centuries, variations being due only to carelessness and incompetence on the part of the moneyers. The weight remained stationary at 22½ grains until the reign of Edward I, when it began gradually to decrease, the standard of fineness was maintained until the debasement of the coinage by Henry VIII.

The coinage during the Norman and Plantagenet period was issued at very irregular intervals and in a very casual manner, no money bearing the name and portrait of the reigning sovereign being issued at all in some reigns. Both Richard and John seem to have been content to use the dies of Henry II, though Richard had a special coinage struck for use in Aquitaine, and John had farthings struck for circulation in Ireland as well as a few halfpence for circulation in England. All through this period there was constant difficulty from the corruption of the coinage, by which is meant the clipping of the coins, the issue of

base money by unlicensed moneyers, and the importation of large quantities of base money from abroad. In the reign of Henry I the current coins were so bad that they would not pass even from hand to hand. In order to try and check this evil, the exchange of money by any one except the moneyers appointed by the king was prohibited, and even they were to carry out all their transactions publicly before two witnesses, heavy penalties were imposed on offenders—mutilation by the civil powers and excommunication by the Church—but with little result. In 1125 Henry sent over orders from Normandy to punish all the moneyers in England with the utmost severity of the law, because the money was so corrupt that it would not pass in any market; this order was carried out at Winchester by Roger of Salisbury, only three moneyers escaping with impunity, and on these fell the task of making a new coinage for the country.

In the reign of Stephen, in defiance of laws to the contrary, the barons exercised the right of private coinage—a right which was exercised for a long time by the nobles in France, but which had been checked in England by the firmness of the Conqueror's rule. Money was now struck in nearly every important castle and a great deal of light money was issued by the nobles for local circulation, known generally as "blanc money" or "album money." The metal used was for the most part a mixture of tin and silver, and it bore so low a value that "in twelve or more shillings the value of twelve pence could not be found." Henry II, when he restored order in the country, tried to improve the state of the coinage, but it was not until 1180 that any thorough reform was made By that time coins were irregular in shape and the inscriptions almost illegible, and a new round coinage was issued, known as the "short cross pennies," which continued down to the middle of the reign of Henry III; the reform was much needed, but it

seems to have been carried out in a manner very burdensome to the people. The illicit coinage of the nobles was checked, but it was found almost impossible to stop it altogether, and the albata, or white money, composed mainly of tin, is always distinguished in the Exchequer rolls from silver money. This base money, notwithstanding its low value, was certainly useful, especially in the reign of Richard I, when the country was stripped of its precious metals to provide for the necessities of the king. The king was absent from England during the greater part of his reign, and very little money seems to have been struck during these years Moreover, in addition to the large sums needed to defray the expense of the Crusade, coins to the extent of 150,000 marks of pure silver of Cologne weight were melted down, refined, cast into bars and exported to pay the king's ransom. It is estimated that about a third of the whole available stock of silver was withdrawn from the country for this purpose, and considerable inconvenience would have resulted from the scarcity of the circulating medium if the base money of the nobles had not to a certain extent supplied the deficiency. Hence the circulation of base coins continued, and the coins issued by the mint were clipped until by the time of Henry III the coin was "so corrupted and debased by clippers and counterfeiters that neither the English themselves nor their foreign neighbours could any longer endure it." During this reign, partly as a result of the king's weak rule, the state of the coinage was worse than it had ever been before ; coins were reduced by clipping to less than half their usual weight, trade was checked, no foreign produce was brought in, and the country was flooded with base money from the Continent. Proclamations forbidding the use of this base money were quite ineffective, as the scarcity of coin made it almost impossible to dispense with any part of the existing currency, however defective, and at the same time made the work of reform extremely

difficult for the Government. In 1247 the state of the coinage was so bad that at a great Council held at Oxford the question of an alteration of the standard was discussed, but this scheme was given up, and the following year a general re-coinage was undertaken, under conditions, however, that were very burdensome for the people. From every pound was taken thirteen pence to cover the cost of coinage, and the new money, when coined, was exchanged for the old by weight; thus the whole expense fell upon the people, and, according to Matthew Paris, a man bringing thirty shillings to the exchange office would hardly get as much as twenty in return.

From the earliest times the right of controlling the coinage rested with the king, though for a long time the actual work of coining was not done by royal officials. During the period of the Heptarchy, when there was probably one central mint for each petty kingdom, there was no uniform coinage for the whole country; each king coined his own money, and the right of coinage was enjoyed as well by the archbishops, bishops, and abbots, though the privilege of placing their own portraits with their names on coins was limited to the Archbishops of Canterbury. After the country had become politically united, the coinage was controlled by the king and the Witan, and by the time of Athelstan one sort of money was current throughout the kingdom. For a long time after this, however, the work of coinage was not centralized, and mints were established in every important town, for, when communication was so difficult, it would have been impossible for new money to circulate freely throughout the country, if it had been supplied from one source only. According to the account given by Stow, Athelstan, who was the first king to reorganize the coinage and to make mint regulations "made seven mints at Canterbury, four for the king, two for the archbishop, one for the abbot; at Rochester, three, two for the king and one for the

bishop Besides these, in London eight, in Winchester six, in Lewes two, in Chichester one, in Hampton two, in Salisbury two, and in every other town one coiner" There was, in fact, hardly a town of any size and importance without a mint of its own, though from the time of Ethelred II, and perhaps earlier, all the dies were engraved at one place and were then distributed to the local mints. Very little information is given in the Chronicles about the coinage, and the only officials mentioned in the Anglo-Saxon laws are the moneyers, who seem in early times to have been also engravers of the dies, as the Anglo-Saxon coins were often inscribed with the name of the moneyer as well as of the sovereign, and it was the moneyers who were probably responsible for the integrity of the coinage. They also seem to have carried on the work of exchange, for as trade increased it was necessary that there should be men in every trade centre who were skilled in the business of exchanging the coins of different countries. In return for the performance of these various duties, the moneyers always enjoyed certain privileges, such as partial exemption from taxation, exemption from serving on juries, etc. The reeve, who is mentioned in Anglo-Saxon and Norman laws, was probably the presiding officer of the mint, because, if any person accused of falsifying the coinage pleaded that he had acted by licence of the reeve, the reeve was to pledge himself by the triple ordeal, and if he failed to prove his innocence, he was to be punished for falsification of the coinage.

After the Norman Conquest the officers of the Mint seem to have been to some extent under the control of the Exchequer, and after the reign of Stephen the royal prerogative over the Mint was more strictly maintained, and the work of the coinage became more centralized Gradually the number of provincial mints was reduced, and by the reign of Richard II the Mint at the Tower did

the work for the whole country, with the exception of the ecclesiastical mints of Winchester and a few other places, which lingered on until the reign of Henry VIII. The Mint became also more completely organized, and a complete list of Mint officials is given in the rolls of Henry III, which includes the Master, who had superintendence over the Mint; the Warden, who paid the salaries of the other officials; the Assayer, who was responsible for the purity of the metal; the Cuneator, whose office was hereditary and who looked after the engravers of the dies; and the Moneyer, who received the dies, delivered them up after use, superintended the striking of the coins, and kept a record of their number.

There were various ways in which payments were accepted at the Exchequer. In the general way payments were made "ad scalam," that is, an additional sixpence had to be paid on every pound to cover the risk to the Treasury of a proportion of the coins being under the standard weight. If the coins were very much under the standard weight, payment was made "ad pensum," that is, by weight only, and the coins were accepted only as standard bullion If the purity of the metal was questionable, the coins were received only as crude bullion, and were sent to the refiners and assayers to be tested, their value being estimated according to the amount of good metal that they were found to contain; this method was known as "per combustionem." In some cases, if the purity of the coins was doubtful, an additional sum of one-twentieth, known as de-albating or blanching money, was exacted to cover all risks from this source, and then it was not necessary to test the coins. It was often a grievance that the light money which the crown had received "ad pensum," or the impure money on which the de-albating fee had been charged, was paid out again by the crown by tale, the king making a profit in this way at the expense of the nation.

The sovereign could also gain profits from seignorage and moneyage. The term seignorage is sometimes used to include brassage, or the expenses of coinage, and is sometimes used to denote merely the profits taken by the sovereign over and above the expenses of coinage. Brassage did not vary very much, but the amount taken by seignorage depended entirely on the needs or caprice of the sovereign and varied enormously at different periods. Moneyage was a sum paid to the king in Norman times in return for his promise not to tamper with the coinage; this payment, however, was always felt to be unjust and oppressive, and was discontinued in the reign of Henry I.

A comparison of prices at widely different periods is always a matter of extreme difficulty, because the conditions of life vary so much, and in early mediæval times coin played so small a part in everyday life that it is almost impossible to get any accurate idea about the value of money then as compared with its value at the present day. In the first place, in feudal times it is impossible to assign a price for land at all, because land was granted away subject to certain conditions instead of being sold or rented; labour dues were general, and wages and rent in money hardly existed, whilst payments and dues of all sorts were constantly given in kind instead of in coin. In the second place, the silver penny, weighing 22½ grains, can no more be compared with the bronze penny of to-day than the pound weight of silver that formed the mediæval pound sterling can be compared with the modern sovereign as a measure of values. Hence it is not until the later part of the thirteenth century, when feudalism was beginning to give way before the advance of trade and industry, that anything like a connected history of prices becomes possible.

All through the Middle Ages the prices of manufactured goods were high as compared with those of the primary

necessaries of life, and beyond these bare necessities commodities in general use were very few and very simple. The price of grain varied enormously with the seasons, and local variations in the same year were often very considerable. Eden estimates that between the Conquest and the reign of Edward III the price of wheat varied from 8d. to £6 8s. a quarter, and, though wheat was not the grain generally used by the peasantry, any failure of the harvests meant a season of scarcity which pressed very heavily on the lower classes. Thorold Rogers estimates the average price of wheat between the years 1260 and 1300 at 5s. 4½d. a quarter, of barley at 3s. 11⅛d. a quarter, and of oats at 2s 3⅛d. a quarter, and he considers that the price of grain must have been high compared with the prices of farm produce. "The profit on growing corn must, owing to the exceedingly meagre returns to the seed, have been very small, and the advantages obtained by the mediæval agriculturist can only have been derived from the returns of his farm stock. As we proceed we shall find reason to believe that while the cost of corn, owing to the low rate of production, was high and the price necessarily considerable, the market value of all other farm produce, wool and hides excepted, was singularly low and obtainable in plenty by the general community In these times, I conclude, the culture of the soil for corn crops was a necessity and not an advantage, and the general distribution of land drove the greater proprietors to such kinds of cultivation as would not have been before them except under such circumstances, and it was abandoned when the practical independence of all landowners led them in the sixteenth century to extensive sheep farming." The average price of wool during these years (1260–1300) was 3d. a pound, and the average amount of wool yielded by the fleece varied between 1½ and 2 pounds. The average price of an ox was 10s. 9¼d., of a cow 7s. 3¼d., of a sheep 1s. 5¾d., and of a

good pack-horse 17s. 4¼d.; a capon could be bought for 2½d., a cock for 1⅛d., a goose for 2⅞d., and one hundred eggs for 3d.

Eden, in his "History of the Poor," gives a summary of the valuation of movable property taken at the borough of Colchester in 1296 for the purpose of levying a subsidy, as an illustration of the degree of comfort then general among the people. "Of household furniture, the quantity possessed by each family was very inconsiderable. A bed was valued at from 3s. to 6s.; in most houses a brass pot, from 1s. to 3s. value, is to be met with; it seems to have been almost the only culinary utensil then in use. Two or three of the inferior tradesmen possessed silver cups from 1s. to 2s value; a blacksmith had a silver cup, four spoons, and a mazer cup; silver spoons were also in use—one was valued at 10d.; a cobbler's stock-in-trade was estimated at 7s., a butcher's stock of salt meat at £1 18s., another's at £1, a tanner's at 7s. and 11s. Almost every family was provided with a small store of barley or oats, usually about a quarter or two of each; rye appears to have been very little used, and wheat scarcely at all. It is probable that corn was generally ground into flour at home, as hand mills are mentioned—a pair cost 12d.; soap and candles with cotton wicks are noticed; some families possessed a cow or two, but more kept hogs, two or three were the usual number of the stock." A subsequent valuation taken at Colchester in 1301 gives a scanty catalogue of household furniture: mazer cups from 1s. to 2s; beds from 1s. 6d. to 6s. 8d., tripods from 3d. to 9d., brass cups from 6d. to 1s., brass dishes from 6d. to 1s., andirons from 3½d. to 8d., gridirons from 6d. to 1s. 6d., rugs or coverlets from 8d. to 1s. 6d. An interesting inventory of the effects of John Senekworth, bailiff of Merton College, who died in 1314, is given by Thorold Rogers. "It contains a tapetum, valued at 7s., two others at 5s., one more at 20d.; six lintheamina (sheets) at

4s. each, and a materace at 1s.; a red coverlet at 2s., a counterpane (co-opertorium pro lecto) at 4s.; a red gown at 8s., another at 3s., a blue gown at 4s., a kaynet gown at 2s. 6d.; a russet tunica at 1s. 6d.; a banker, *i.e.* a cover for a seat, at 15d.; a table cloth at 1s.; two more, and two napkins, at 6s.; three quisins, *i.e.* cushions, at 9d. each. Besides these articles of linen or clothing Senekworth possessed three gold rings, one of which was broken, the whole being valued at 1s. 6d., a purse at 4d.; a pouch at 3d.; a knife at 1d.; a forcer, *i.e.* a chest, at 3s.; two glasses (murræ), one with a silver stand, worth 7s, a second 8d.; four silver spoons, valued at 3s. 2d.; two silver seals (formacula), 2s., one of them being mounted by a gilded penny as a symbol; three books of romance valued at 3d.; two pairs of linen panni at 1s.; a basin and ewer at 1s., besides some less characteristic effects."

CHAPTER II

FROM THE THIRTEENTH CENTURY TO THE DISCOVERY OF AMERICA

THE next period in the history of the coinage extends from the thirteenth century to the discovery of America at the end of the fifteenth, when the great increase in the supply of the precious metals revolutionized the monetary world. The chief characteristic that marks the period off from the earlier one is that the currency not only in England but in all the countries of Western Europe was now bi-metallic, and the use of gold as well as silver for purposes of money, though in itself a sign of progress, brought with it many complications and difficulties This change began with the conquest of Constantinople by the Crusaders in 1204, which gave to the Latin races for the next fifty years control of the Black Sea and the Crimea—then the chief gold-yielding districts—and brought them into close relations with the Byzantine Empire, which had for centuries been accustomed to a gold currency, and it led to a great increase of trade with the East The trading towns of Italy were first affected by the change, as these lay on the main route to the East, and they reaped the benefit of the trade with the East that developed in the wake of the Crusaders. The gold florin struck at Florence in 1252 started a new era for the monetary systems of Europe ; gold coins were struck very soon afterwards in the countries of Western Europe, and in the fourteenth century numerous experiments in gold coinage were made,

and the bi-metallic system became general. From this time, though the two metals were nominally on the same footing and both were unlimited legal tender, the increasing importance of gold, more especially for international transactions, becomes noticeable. In some of the treaties of the later Middle Ages it is expressly stipulated that payments should be made in gold. For instance, in the treaty made between the Black Prince and Pedro of Castille in 1367, it was stated that the florins of Florence were to be used for the payments promised; the dowry given with princesses on their marriage was nearly always paid in gold, the transactions of the Italian bankers were generally settled in gold, and gold was always the official money of the papal court. Some attempts were even made to establish gold as a formal legal standard. France made a very determined attempt to do this in 1577, and in England it was suggested in 1343 by the advisers of Edward III that, by arrangement with the Flemings, all gold money should be taken at its bullion value, and that the value of silver money should be reckoned thereby These attempts were not successful, but they are a proof of the estimation in which gold was held.

One of the greatest difficulties that governments now had to contend with was the constantly changing ratio between the market values of gold and silver. Hitherto, as gold had been so little used for purposes of currency, this had caused little trouble, and, regardless of the market ratio of bullion, which on the whole had remained fairly steady, the ratio adopted for coin had remained stationary at 12 : 1 in some countries and 8 : 1 in others. In the thirteenth century, as gold was being much more largely used for the currencies of the Italian cities and for the growing trade with the East, the market value of gold bullion was rising relatively to that of silver, and this rise was continued in the fourteenth century. At that time, when both metals were being used as unlimited legal

tender by the countries of Western Europe, the varying ratio between the value of gold and silver bullion was a constant difficulty, and the governments, understanding very little about the economic laws which regulated these changes, tried by arbitrarily fixing the ratio at which the metals were to be accepted at the mint to follow, more or less closely, the changes in the market ratio for bullion. As a rule, however, government action only helped to increase the confusion, for all governments were acting in the same way and there was no attempt at common action. Hence not only were the mint ratios being constantly altered by proclamation, but they varied in different countries at the same time, and in any country the cheaper metal—that is, the metal that was the less highly rated—had a tendency to flow out For instance, in 1474, when the ratio of the value of gold to silver according to the Mint rates was 11·15 · 1 in England and 11 00 . 1 in France, silver, being less valuable relatively to gold in England than in France, had a tendency to flow out of England to France, while gold had a tendency to come from France to England The reason for this must be sought in the action of the money-dealers, the exchangers of coin, and the workers in the precious metals The general public would use for the ordinary purposes of internal trade any money that was current in their own country and which would pass freely from hand to hand, and the ratio of exchange did not affect them except in so far as it tended to make a scarcity of one or the other of the metals, but there was always a small class of people who could make their individual profit by taking advantage of the difference of the ratio at different places. The exchangers, for instance, would find in 1474 that as the English Mint attached little value to silver, there was no profit to be gained by sending silver bullion to England to be coined ; on the other hand, as a given amount of gold would exchange in England for comparatively large quantities of silver, they would use

their gold to buy up English silver, and would melt down English silver coins and export the metal to France, where it was worth more and where it would exchange for larger quantities of gold.

The rates at which the money of one country will exchange for the money of another are known as the Foreign Exchanges, and, as trade increased, it was clear that the exchanges were directly affected by the state of the currency as well as by the general conditions of trade. The foreign exchanges may be taken as an indication of national indebtedness, for, as is explained by Goschen, it is the exchange of debts—between private individuals for the most part—that is being effected. "As a result of international commerce a certain portion of the community has become indebted to merchants in foreign countries, and in order to save the trouble, risk, and expense of sending coin, it seeks out any portion of the community to whom a similar amount is owing by the identical foreign countries in question, and, buying up these debts, assigns them in payment to its own foreign creditors." The rates of exchange between any two countries are constantly fluctuating because the conditions neither of their currencies nor of their relative indebtedness are likely to be a constant quantity.

In the case of two countries using the same metal for their currency it is fairly easy to determine how much a given quantity of the coin of the one country is worth in the coin of the other. What is known as the Mint Par of Exchange is "the fixed intrinsic value of the currency unit of one country expressed in terms of the currency of another which uses the same metal as the standard of value. The value of a currency unit is taken to depend upon the quantity of pure metal that it contains as fixed by law, and the mint par tells us how much of the other country's currency contains, according to their law, precisely the identical quantity of the same pure metal"

(Clare). The mint par expresses the legal ratio only, and only holds good in actual practice if the coins are exactly what they profess to be. If the currency of one of the countries falls below the legal standard, either in weight or quality, a greater amount will, notwithstanding the mint ratio, be required to exchange for a corresponding quantity of the coin of the other; in this case the exchanges are said to be unfavourable to the country that has to pay the increased amount. As a result of this effect of the currency on the exchanges we see the application of Gresham's Law, generally expressed briefly by the formula that "bad money drives out good money." When the coinage is depreciated, good and bad money are in circulation together for a time, and, unless they have very much deteriorated, the depreciated coins will pass current from hand to hand and will be accepted for purposes of internal trade at their nominal value, while for purposes of foreign trade they will only be accepted at their value as bullion. Hence as good and bad coin can, up to a certain point, be used indifferently within the country, whilst a larger amount of the depreciated money would be required in trading with other countries, it is inevitable that the good coins should be used exclusively for foreign trade and the depreciated coins be left for home circulation In the case of an exchange of coins of different metals no stable par of exchange is possible, because, as has already been explained, the market rate between gold and silver bullion is constantly changing, while the mint ratios fail to adjust themselves to the alterations of bullion. This led in mediæval times to a perpetual traffic in the precious metals themselves, and to the exportation of the metal which was the less highly valued. In this again can be seen an application of Gresham's Law, for it has been said that under the mediæval bi-metallic system difficulty was caused, not only because bad money drove out good money, but because

the less valuable money was allowed to buy up the more valuable.

Another difficulty during this period was the scarcity of the precious metals, for between 1300 and 1500 the production of gold and silver was almost stationary. Gold was obtained mainly from finds on the eastern shore and from the north interior of Africa, silver mainly from the German mines, but the amount gained was hardly enough to supply the loss by wear and tear; and, as during these centuries trade was rapidly expanding, and a great deal of metal was at the same time hoarded, used in the arts, or absorbed in the trade with the East, a larger supply was needed The natural difficulties caused by this state of things were increased by legislation; each country tried to get and to keep as large a share of the available stock of metal as possible, and Government regulations, framed with this object, though they were for the most part ineffectual, tended to prevent such a free circulation of money as alone would have enabled the small supply of metallic money in Europe to do all the work that was required of it.

The chief measures taken by the English Government in the hope of securing a plentiful supply of money were (1) the prohibition of the export of gold and silver, (2) the settlement of the ratio between gold and silver by proclamation, and (3) depreciation of the coinage.

(1) The exportation of gold and silver was forbidden on pain of death; merchants were ordered to bring to the Mint for coinage a certain amount of bullion in proportion to the value of the articles imported, and royal officials were appointed at the staple towns to see that a balance of money was paid on each transaction, or, in other words, that in the dealings of each merchant the value of exports was always to exceed that of imports. It was impossible, however, always to avoid paying for goods in money, and merchants were allowed to export gold and silver in bars, provided that the metal used was either bullion or was

obtained from melting down foreign coins, and the exporter had to take an oath that no English coin had been melted down for this purpose. This "sworn off" gold, as it was called, was worth 1½d. per ounce more than other gold. Special permission was also given to persons travelling abroad, more especially to those visiting Rome, to take with them the money that they needed. Even when these exemptions had been provided for, however, the laws against exportation were still far too stringent, and the frequent recurrence of this prohibition in the laws and proclamations at any time of special financial stress affords sufficient proof that it was found impossible to enforce it effectually.

(2) The ratio at which gold and silver should be received at the Mint and the rate of exchange of foreign coins were fixed by proclamation, with the object of encouraging an influx of precious metal into the country. This policy more often than not defeated its own ends, for as soon as the exchanges turned in favour of England they were upset by the Government regulations of other countries which were being denuded of their currency, and the English Government could only cope with this by making further alterations in the ratio.

(3) Depreciation took the form of crying down the coins—that is, the coins were reduced in weight, though they remained at the same nominal value, and it was hoped that, as they contained less metal and were consequently of less real value, there would be less temptation to melt them down and export them Thus the scarcity of metal led to a steady lowering of the value of the coins—more especially of the silver coins—which went on from the reign of Edward I to the reign of Elizabeth, though the standard of fineness of the metal was not tampered with until the reign of Henry VIII. The silver penny was lowered in value until, by the end of the sixteenth century, its weight was reduced to a third of what it had been in

Anglo-Saxon and Norman times, and the weight of other coins was altered in proportion.

Except for this alteration in weight, no great change was made in the silver coinage during this period. The difficulties from corruption of the coinage still continued; the silver sterlings or pennies were clipped until they were often only half their proper weight, and there was a good deal of base silver money in circulation, some issued by nobles and ecclesiastics or by false coiners for their own profit, some brought in from abroad in payment for English wool, under various names—pollards, crocards, scaldings, etc. The coins resembled silver in appearance, and were composed of a mixture of silver, copper, and sulphur; they were worth not more than a fourth or a fifth of the English silver penny, but for a time were allowed to be current at the rate of two for a penny, until the King made a serious attempt to restore the coinage. All base coins were declared to be forfeited unless they were brought at once to royal officials to be exchanged; the ports were watched, and all persons coming into the country had to produce their money for inspection; exchange tables were established at Dover to examine and keep a check on the coin brought into the country, and severe repressive measures were taken against offenders; lastly, a plentiful supply of good weight coins in pure metal was struck. In spite of all that the King could do, however, base coins still continued in circulation, for illicit mints in Flanders and Germany imitated the good English coins in coins of lighter weight and baser metal, and these coins found their way into the country in spite of Government regulations. In 1310 a petition of the Commons represented to the King that the coins were depreciated by more than a half, and it was ordered by proclamation that coins were to be current at the value they had borne in the reign of Edward I, and that no one was to enhance the price of his goods on that account.

In the next reign "black money" containing one-sixth part of alloy is mentioned, but this again was due to illicit coinage and was not issued by the Mint. Edward I embarked on the policy of depreciation, and the weight of the penny was reduced in this reign from 22½ grains to 22¼ grains, and after successive alterations it was reduced in 1465 to 12 grains. The necessity for some smaller coin than the penny began to be felt with the increasing use of money for the ordinary petty transactions of everyday life, and some authorities have suggested that the pennies were broken up into halves and quarters, but this does not seem to be very probable, as the danger from clipping would have been so greatly increased, and silver halfpence and farthings began to be regularly issued from the Mint. Groats—silver coins of the value of 4d.—with half groats of the value of 2d., were first struck in the reign of Edward III in 1351, they were similar in type to the other silver coins and became henceforth an important part of the currency.

The introduction of a gold coinage brought considerable difficulties in its train and led to a good many experiments in currency matters, with very various results. The first of these experiments was the gold penny, issued by Henry III in 1257 in imitation of the gold florin which had been struck at Florence five years earlier ; this gold penny weighed 45 grains, or twice as much as the silver penny, it was valued at 20 silver pennies and was made of pure, unalloyed gold. It does not seem to have been popular, probably because its value was too high to allow it to come into general use, difficulties were also caused because it was undervalued in proportion to silver and this led to complaints from the merchants, but these complaints ceased when its value was raised to 24 silver pence. It does not seem, however, to have remained long in circulation, and no new gold coins were struck in the next two reigns. There were still some foreign

gold coins in the country, circulating by weight, and of these the best known were the bezants and the maravedis: the latter, which had originally been struck in Spain, were very well known coins of recognized weight and fineness, and circulated more freely as the bezants began to disappear.

The reign of Edward III may be taken as the time when an indigenous gold coinage became an important part of the currency of the realm. The change was due mainly to the foreign relations of England—both political and commercial—in this reign, but partly also to the difficulties caused by the constant influx of debased silver coins from the Continent. In 1337, when the Hundred Years' War began, Edward entered into alliance with the German princes and was made Vicar-General of the Emperor with power to coin both gold and silver, though it is not at all likely that the English king recognized the necessity for the imperial sanction in this respect. Just at this time a large quantity of base money was coming into the country through the trade with Flanders; it was struck in a white metal resembling silver, and was so inferior in quality that coins to the nominal value of a pound were sometimes worth no more than 40 pence. This influx of base money had caused such a dearth of good money that the Government found it necessary as early as 1335 to try and check the evil by legislation: "Because we have perceived that divers people beyond the sea endeavour to counterfeit our sterling money in England, and to send into England their weak money, in deceit of us, and damage and oppression of our people, we have ordained that from henceforth no religious man, nor other, shall carry any sterling out of the realm of England, nor silver plate, nor vessel of gold nor silver; also that no false money be brought into the realm, that no sterling halfpenny nor farthing be molten for to make vessels or any other thing by goldsmiths nor other, also

that all manner of black money, which hath been constantly current of late in our realm, be utterly excluded."

In 1339 Parliament suggested that every merchant should bring into the country 40s. or more in money for every sack of wool exported, but this had no effect, and complaints were made that the Flemish florins paid for English wool bore a much higher value in Flanders than in England, and that the discrepancy was so great as to cause the loss of a third on all merchandise exported thither. The London goldsmiths were asked to analyse the Flemish florins to discover the quantity and value of the fine gold contained in them and to give advice to the Government on the matter; as a result of these deliberations it was proposed to coin money in fine gold to be current in both England and Flanders, if it could be done by agreement with the Flemings, and to melt down all other gold coins in the country. Consequently, in 1343 were struck the gold florin—sometimes known as the double florin, because it was equal in value to two of the little florins of Florence—the half florin, or leopard, and the quarter florin, or helm. The florin was struck in gold metal 23½ carats fine, it weighed 108 grains and was current at 6s. The ratio between gold and silver that was adopted was 12·61 : 1, but, as this valued gold too highly in proportion to silver, people soon refused to accept the gold coins, and money-dealers made a profit by exchanging these overvalued gold coins for English silver, which they melted down and exported, thus depleting the country of its silver coinage and causing another influx of debased white money from abroad. The following year the florin was declared by proclamation to be no longer legal tender, and it was to be current only as bullion. New gold coins were now struck, known as nobles, together with the half noble or maille noble, and the quarter noble or ferling noble. The nobles were valued at 6s. 8d., and 39½ were coined from the pound Tower of gold; they were to be legal

tender only for sums of 20s. or more and were to be used exclusively for foreign trade, the export of all other gold and silver in coin or plate being strictly prohibited. It was soon found necessary to reduce the weight of these coins, as they were imitated in the Low Countries in lighter and baser metal, and the laws prohibiting the export of English coins and the importation of foreign coins could not be enforced. To meet the difficulty the pound Tower of gold was coined into 42 nobles instead of into 39½, and, as this was ineffectual, the weight was reduced still further in 1351 and the pound Tower coined into 45 nobles, on the ground that English coins "had hitherto been so much better than those of any other nation that they were exported and base money brought into the realm, to the impoverishment of the people." In 1353 it was again forbidden by proclamation to "carry out of the realm the old sterlings or any other money but the King's new money of gold and silver." This "new money" was the coinage of 1351, which, though of the same standard of fineness as before, was made of lower weight with the object of crying down English coins to a point below that of the competing currencies of the Continent. The plan failed because foreign countries retaliated by altering their currency laws, with the result that by the next reign England was again denuded of precious metals. The reason given was still the same, viz., that English coins were better than those of other countries, though nominally of the same value; this meant that the English Mint gave fewer coins in exchange for a pound weight of metal than foreign mints, and consequently very little bullion was brought to the English Mint for coinage and the heavy English money was exported, the gold coins going to the Continent, the silver coins to Scotland. Prohibitions against the exportation of the precious metals were renewed at intervals, but exemptions had to be allowed in order to pay the wages of

the soldiers and officers at Calais and the ransoms of English prisoners in time of war. It was ordered that debts due to foreign merchants were to be liquidated by the exportation of English goods instead of by money payments, and that aliens trading in England were to spend all their money, "saving only their necessary expenses," on English goods, but none of these regulations had much effect.

Another method by which the King hoped to gain wealth, though he only resorted to it with some reluctance, was alchemy, for by this means it was thought that the stock of precious metals could be indefinitely increased On one occasion an alchemist was brought into England by the Abbot of Westminster, and agreed to make the King rich by his art in return for the King's promise to make war on the Turks , but, when Edward showed no signs of carrying out his promise, he refused to work any longer and was put into the Tower. Edward made more than one attempt to increase the wealth of the realm in this way, but it was always thought to be of doubtful morality, and in the reign of Henry IV the use of the "art of multiplication," as it was called, to increase the stock of precious metals was forbidden by statute and was made felony. The desire to get gold, however, was too strong to be repressed by Parliament, and Henry VI allowed the law to be relaxed and gave licence to various people to carry on their operations in this work notwithstanding any Act to the contrary, for promises were held out that wealth could be provided to pay off all the King's debts, "to the great advantage of the kingdom," and the opportunity was too good to be lost. The law of Henry IV was not repealed until the reign of William and Mary, when it was discovered that people who were skilled in the work of extracting gold and silver from ore were prevented by fear of this Act from carrying on their work in England and removed their industry abroad.

Little change was made in the coinage in the time of the Lancastrians. In 1412, "because of the great scarcity of money at this time within the realm of England and because of other mischiefs and causes manifest," the weight of the coins was still further reduced, and fifty nobles were now coined from the pound Tower of gold, the nominal value of the noble remaining 6s. 8d. as before. In the next reign, as the scarcity continued and all the coins were in very bad condition, the tax collectors, who generally received money only by weight, were ordered to receive any nobles which contained metal to the value of 5s. 8d. in full payment of the sum of 6s. 8d., its nominal value, and all light-weight coins were ordered to be brought to the Tower to be recoined. The difficulty still continuing, Edward IV made an important change in the gold coinage, and by raising the nominal value of the coins without increasing the amount of metal contained in them, he artificially increased the amount of coin in circulation. A new gold coin, known as the royal or rose noble, because it was stamped with a rose—the Yorkist badge in the Wars of the Roses—was struck at the nominal value of 8s. 4d. instead of 6s. 8d., for which sum the noble had hitherto been current, and the nominal value was soon raised to 10s. The place of the former noble was taken by the angel—so called because it was stamped with the figure of the Archangel Michael trampling on the dragon. The angel was made current for 6s. 8d., and half and quarter angels were struck a little later.

Throughout the fifteenth century the scarcity of coin in proportion to the amount of work required to be done by it had caused a reduction of about 40 per cent in the amount of metal contained in the coins. The weight of the silver penny had fallen from 22 to 12 grains, and the gold coins tariffed at 6s. 8d. contained only 80 grains of gold as against 128 grains which they had contained in

the fourteenth century ; moreover, the production of silver had decreased so much that the value of gold had fallen somewhat relatively to silver. It must be remembered that cash or bullion was the basis on which most transactions were carried on ; commercial credit as a basis of business was as yet but little known, and the use of paper money was still in its infancy

The work of coinage was during this period coming more exclusively under royal authority and tended to be more and more concentrated in the London Mint. In the reign of Edward III gold coins were struck only in London and Calais, and, though the King had a mint at York, no gold coins seem to have been issued there. Edward IV struck gold coins at provincial mints established at Bristol, Norwich, Coventry and York, but probably this was only in order to enable the great work of recoinage then going on to be carried through more expeditiously. Ecclesiastical mints were still allowed to issue the smaller silver coins, but never gold, and continued in existence until the reign of Edward VI.

From the time of Edward I the work of the Mint was done by contract. The Mint master undertook the manufacture of the coinage and paid the other officers who worked under him, receiving in return a salary sufficient to pay him for his work and to cover all the expenses of coinage. In order to keep a check on the master, the method of testing money known as the trial of the pyx was instituted. When the new money was struck two coins were taken from every 15 lb. weight of gold and two from every 60 lb weight of silver, one for private assay within the Mint, which hitherto had been thought sufficient to sanction the delivery of the coins to the owner of the bullion, the other for the public trial of the pyx, which was now thought necessary to guarantee the integrity of the coinage. The pyx was the box in which the coins selected for the trial were placed, and it was secured by three locks,

the keys of which were in the custody respectively of the warden, master, and controller of the Mint, and the testing of these coins was, from the reign of Edward I, conducted publicly before a jury. This trial was repeated at short intervals, sometimes every three months, and was thought to be an efficient check on improper issues of money. In later times it only took place when a new master of the Mint was appointed, in order to give the retiring master his discharge.

The following tables, taken from Ruding's "History of the Coinage," will show how seignorage rates varied during this period.—

(1) SEIGNORAGE ON GOLD.

	Pound weight of Gold coined into	Seignorage	Payment to Master of the Mint	Sum given to the Merchant
	£ s d	£ s d	s d	£ s d
1345	15 0 0	1 3 6	3 6	13 16 6
1345	13 3 4	0 8 4	3 4	12 15 0
1357	15 0 0	0 6 8	1 2	14 13 4
1404	15 0 0	0 5 0	1 6	14 15 0
1446	16 13 4	0 5 0	1 6	16 8 4
1465	20 16 8	2 10 0	2 4	18 6 8

(2) SEIGNORAGE ON SILVER

	Pound weight of Silver coined into	Seignorage	Payment to the Master of the Mint	Sum given to the Merchant.
	£ s d	s d	d	£ s d
1300	1 0 3	1 2½	5½	0 19 0½
1345	1 2 2	1 2	8	1 1 0
1357	1 5 0	0 9¼	6½	1 4 2¾
1405	1 5 0	0 10	7	1 4 2
1465	1 17 6	4 6	—	1 13 0

The right to control the Mint gave the King the right to impress workmen for it. In 1247 Henry III issued a writ ordering the master of the Mint to bring to England from

beyond the seas, and at the King's expense, a person skilled in the coinage and exchange of silver. In 1352 Edward III authorized the masters of the Mint by letters patent to take as many goldsmiths, smiths and other workmen in the City of London or elsewhere as should be necessary for the work of the Mint and to bring them to the Tower and put them to work at wages there, they also had power to seize and imprison in the Tower any who were rebellious, and letters to that effect were sent to all sheriffs. This custom of impressing labour for the work of the Mint was not discontinued until the reign of Elizabeth.

From his exclusive rights of coinage the King derived the right to exchange money—a privilege which had the double advantage of preventing private extortion and of making a profit for the Crown. The profit taken was generally about $1\frac{1}{5}$ per cent.; *e.g.*, in giving silver in exchange for gold nobles the royal officer would give 6s. 7d. instead of 6s. 8d., whilst if he was receiving the silver in return for nobles he would demand 6s. 9d. The royal exchangers had also the exclusive privilege of giving current coins of the realm in exchange for foreign coins, of buying up light money for the use of the Mint, and, as exportation of English money was forbidden, of furnishing merchants and others who were going abroad with foreign money in exchange for English money. In order to enable the King to maintain his monopoly, an exchange was established in every important town, and the custom did not fall into disuse until the middle of the reign of Henry VIII.

During the latter part of this period—roughly speaking from the reign of Richard II—the Mercantile Theory, that was to dominate English economic thought and legislation until well on in the eighteenth century, was taking firm root in men's minds. This doctrine taught the necessity of subordinating the interests of the individual in trade and industry to the idea of national power. In order that

the nation might be powerful it was necessary to keep a large stock of coin and bullion in the country to make adequate provision for naval and military defence. It was with this object now that the exportation of the precious metals was prohibited and trade regulated, in order to get, as far as possible, a cash balance on every transaction, and in later days to arrange to have on the whole an excess of exports over imports, in order that the balance might be paid in bullion. These methods hampered trade considerably, but they were not successful in keeping a larger stock of money in the country than would have been obtained in the ordinary way; yet it was not until the end of the seventeenth century at the earliest that the futility of these restrictions began to be realized.

For nearly three hundred years, from 1261 to 1540, prices varied very little, and this uniformity was caused and could only have been maintained by the gradual reduction in the weight of the coins. Trade and industry were expanding, while the stock of precious metals remained stationary, and the fall of prices, that would naturally have resulted from the increased demands made upon the scanty stock of metals, was checked by the progressive depreciation of the coinage in weight, though not in quality. English prices were much steadier than prices on the Continent. The lowering of the value of coins on the Continent was perhaps a sign of the revival of the trading spirit, whilst the stability of the English coinage until a later period may in that case be interpreted as the sign of a slower industrial and economic development.

All through the Middle Ages the prices of what may be called the primary necessaries of life—food and land—were low, compared with the prices of manufactured goods In the fourteenth century, when labour services were rapidly being commuted into money payments and feudalism was breaking up, the usual rent paid for land was 6d. an acre, and land was worth fifteen years' purchase.

Fuel and pasturage were generally free, though sometimes dues of a feudal nature were paid to the lord for the right to use the pasture land. The average price of wheat during the period was 5s. 10½d per quarter, but the price varied considerably with the harvests and there were also great local variations. For the feast of the installation of Ralph de Born, Prior of St. Augustine's, Canterbury, in 1309, it is recorded that 53 quarters of wheat were bought for £19 (7s 2d. per quarter), 58 quarters of malt for £17 10s. (6s. per quarter), and 20 quarters of oats for £4 (4s. per quarter). Meat was sold for ¼d per pound, and the price of animals was low, but it must be remembered that there was a great difference between the animals of the Middle Ages and those of the present day. Oxen could be bought for 13s. 1½d. in the fourteenth century, but their weight was only a third of the average weight of oxen of our time, and sheep could be bought for 1s 5d, but produced only one pound of wool, where they would now produce eight or nine Wool was worth 3¼d a pound and was coarse and of poor quality compared with the wool of the present time. Dairy produce was very cheap, because dairy farming was a domestic industry carried on by most of the country population; cheese was sold for ½d per pound, butter for ¾d. per pound, and 120 eggs for 4½d. Manufactured goods were dearer in proportion; 1,000 bricks cost 10s 11d, raw iron 4s. 1½d. per cwt., and first quality cloth 79s. 8d for 24 yards

The catastrophe of the Black Death in 1349 convulsed the whole economic life of the country, and its effect on prices was to raise the price of labour and to raise temporarily the prices of all articles of which labour formed a considerable part of the value Land was unaffected, because land is valueless unless labour can be expended on it. Wheat rose very slightly, the price of dairy produce and fish rose considerably, as well as the prices of all manufactured goods, whilst wages rose as much as 45 per

cent. In the fifteenth century wheat fell to 5s. 10d.—slightly below its former average; and, though the prices of animals were steadily rising, oxen selling for 20s. 7d. and sheep for 2s. 2¾d., this may have been due entirely to improved breeding and consequent increase of weight; the fall in the price of wool to 2¾d. per pound was probably due to the increase of sheep-farming. Wages did not go down, but the great advance in manufactured goods was not continued; bricks were now 6s. per thousand, raw iron 5s. 4½d. per cwt., and best quality cloth 58s. 8½d. per 24 yards.

CHAPTER III

THE TUDORS

A NEW period in the monetary history of Europe begins with the discovery of America and the influx into Europe of the gold and silver of the New World. During the latter part of the Middle Ages the stock of precious metals had been stationary; in fact, it had been decreasing relatively to the amount of work that was required of it as trade expanded; but by the end of the sixteenth century the amount of gold and silver had not only increased sufficiently to keep pace with the great commercial expansion of the period, but was also bringing about a general rise of prices all over Europe.

Before the new era began, the total supply of precious metals in Europe probably amounted to about £34,000,000, in the proportion of 11 per cent. of gold to 89 per cent. of silver. As no records were kept in Spain of the quantities of gold and silver brought over from the New World, it is impossible to determine exactly the amount of the new supplies. Humboldt has estimated that, in the twenty-five years after the first discovery of the gold-producing districts by Spain, the annual supply of precious metals obtained from the New World amounted to £52,000, and that during the next quarter of a century the conquest of Mexico and Peru sent up the annual production of gold and silver of the New World to £630,000. Hence in fifty-four years the total supplies gained amounted to £17,258,000, which represented an increase of 50 per

cent. in the total stock of Europe. The produce of the European mines—of the value of about £100,000 annually—was nearly counterbalanced by the loss caused by ordinary wear and tear; but, before long, under the stimulating effects of the discoveries, the production of the European sources of supply had risen to £150,000 annually. As yet the general level of European prices had been very little affected, for the increase had been gradual; a very large proportion of the new supplies had gone into the Spanish Treasury, and it was a long time before they were generally diffused over Europe. It was the opening of the silver mines of Potosi in 1546 that really brought about the monetary revolution; for, between 1546 and 1600, the annual supplies gained from the New World amounted to over £2,100,000, and the effects of this sudden and unprecedented increase were soon apparent in a marked rise of prices.

It has been estimated that by the end of the sixteenth century the total stock of gold and silver in Europe had risen to £155,000,000, and that, allowing for the deduction made for use in the arts, for hoarding, and for trade with the East, which soon caused a constant drain of specie from Europe, the amount of coin must have been trebled during the century. The ratio between gold and silver was also affected, for the increase had been mainly in silver, and as a medium of exchange silver consequently shot ahead of gold and maintained its supremacy all through the seventeenth century, gold forming only 2 per cent. of the whole annual supply. It was not until the end of the seventeenth century, when fresh supplies of gold were obtained from Brazil and when the Potosi mines were becoming less productive, that the balance turned again in favour of gold.

During the Tudor period the currency was becoming much more complex, for the mediæval coins were still struck side by side with denominations of a modern type;

hence there was a great and often a confusing variety of coins, and the complexity lasted through the greater part of the seventeenth century.

In the silver coinage the chief change was that coins of a higher denomination were struck in addition to the coins already in circulation—the groat, half groat, penny, half-penny, and farthing The shilling, which had been money of account since very early times, was struck for the first time as a silver coin in 1504, it weighed 144 grains and was to be current for twelve pence—hence the weight of the silver penny was now 12 grains instead of 22½ grains as in former days. On this coin there was for the first time as well some attempt at real portraiture, and the King's face was represented in profile, not full face as had been usual hitherto. In the reign of Edward VI the crown, half-crown, sixpence, and threepence were struck, and silver coins for the first time bore dates and marks of value. Silver farthings were coined for the last time in the reign of Mary, and Elizabeth struck silver coins of the value of 1½d. and ¾d., but these were only issued in her reign, and in the seventeenth century the smaller silver coins—those under the value of 6d.—began to disappear.

The chief innovation in the gold coinage was the issue of the sovereign or double real, struck first in 1484, which weighed 240 grains and was valued at 20s. It was the finest gold coin that had yet been struck in England—in fact, it excelled nearly all the European coins of the period and afforded proof of the growing wealth and prosperity of the country. The double sovereign, half sovereign, gold crown, and half crown were issued by Henry VIII, and angels and rose nobles continued all through the period.

The difficulties resulting from a badly understood bi-metallic system still continued, and the rates at which gold and silver were to be received by the Mint were still liable to sudden and arbitrary changes, which record the

efforts of the Government to prevent the outflow of the precious metals. Throughout the sixteenth century complaints were constantly made that the coin of the realm was enticed away to the Netherlands After the discovery of America the Netherlands held the central position for trade, which had, since the Crusades, been held by the Italian Republics, the coins of all countries passed through the hands of their merchants, and, to facilitate commercial transactions, proclamations, or "plakkaats," as they were called, were issued after 1516, tariffing the different European coins against one another and stating clearly the rate of exchange. As gold was rather less highly rated in England than on the Continent, good English gold coins were melted down and exported, and as they disappeared from the currency they were replaced by continental coins of the same nominal value but containing less good metal. The diminution of the currency, which resulted in England, was felt all the more keenly because it was a time of expanding trade, and more money, not less, was required for commercial purposes. To meet the difficulty, in 1526 an ounce of English gold was raised in value by proclamation from 40s. to 45s. of pure silver; a little later the value was raised to 48s. an ounce, the sovereign was to be current at 22s. 6d. instead of 20s. 6d., and the value of other gold coins was altered in proportion. Silver coins were to pass current at their previous rates, but the new coins issued were reduced in size. These regulations were only temporarily effectual, for the Flemish rates for gold were altered almost directly after the proclamation was issued, and the export of specie began again.

The Acts of Henry VIII dealing with the currency, up to and including the year 1544, were Acts passed in self-defence with the object of safeguarding the currency, not of enriching the King at the expense of the nation. Debasement was in fact forced on the King as the only

means of protecting the national store of precious metals, and to effect this he not only reduced the weight of the coins, a process which had been going on since the fourteenth century, but also lowered the standard of fineness of the metal, an innovation which had disastrous results. The standard of fineness for gold had hitherto been 23 carats 3½ grains of fine gold to ½ grain of alloy, but after 1526 crown gold, so called because it was first used for the coinage of crowns, was issued at 22 carats, and later at 20 carats fine Hence all through the time of the Tudors and early Stuarts two sets of gold coins—those struck in standard gold and those struck in crown gold—were circulating side by side. The standard of fineness for silver—11 oz. 2 dwts of fine silver to 18 dwts. of alloy—had remained almost unaltered since the Conquest, and the debasement of silver, when it had once begun, went on very rapidly. By 1543, coins were issued five parts of fine silver to one of alloy; a little later the proportion of alloy was increased to 50 per cent., and then to 70 per cent. In 1465 an ounce of silver had been worth 2s. 1d. in the coin of the realm; in 1527 it was worth 3s., and in 1544, 4s. The excuse for these continued debasements given in the proclamation issued in 1544 still refers to the same difficulty, "the enhancement of the price of these metals beyond the sea, as well in Flanders as in France, which would have drawn all the coins out of the realm if a remedy had not been applied."

Debasement for royal profit began in 1545, when the amount of fine silver in the testoon or shilling was reduced suddenly from ten to four grains, other coins being reduced in proportion. This debasement was due to the arbitrary caprice of the sovereign and stands apart from the operation of economic laws, though it intensified the difficulties already existing. The object was to enable the King to make a profit by paying his debts in base money, and the gain accruing to the Crown from this

source has been estimated at £50,000, but the relief so gained was only temporary, and soon not only the King but private coiners and money-dealers took advantage of the opportunity to make their individual profit at the expense of the general public by coining money which in weight and purity came up to the Government standard. "The sums for which the Government was responsible formed but a fraction of the mischief. Sir William Sharington first of all, controller of the Mint at Bristol, who had been directed, when other mints were busy, to keep his own inactive, made an opportunity of the prohibition. The inhabitants of the Somersetshire villages made away surreptitiously with their church plate. Sharington became the general purchaser, and threw it upon the country in testoons, or bad shillings, in which four ounces of pure metal were mixed with eight of alloy The profit he kept to himself and the accounts he falsified. How much bad money he coined he could not tell, but he admitted to have gained at least £4,000 The possession of a mint made Sharington the first in the field, but naturally in a little while the entire currency was infected. The pure coin was bought up and coining establishments set at work in France and Flanders and in remote corners of Europe Bad and good money could not coexist together, and the good disappeared" (Froude). Probably the King himself had no idea of the disastrous results that would follow his action, and did not realize that a comparatively small quantity of base coin thrown on the circulation would cause the good coin to disappear and be replaced by bad, especially as some of the financiers of the day were beginning to say that, as money was only used for exchange, it did not much matter what it was made of, provided there was plenty of it. "If money was plenty all things would be plenty, the greater the abundance of money, the greater the abundance of everything." Just at first the sudden rise of prices caused

temporary industrial activity and a fallacious appearance of prosperity, but this soon vanished, as the rise was not supported by any real increase in national wealth, and the disorganization of the monetary system struck a heavy blow at the manufacturing industry and added to the numbers of the unemployed The Government soon found itself in difficulties from the same cause, for taxes were paid in debased money, and it had to pay in sterling silver 14 or 15 per cent. interest on its debts to foreign creditors, together with an additional 12 per cent. on the exchange.

During the first part of the reign of Edward VI nothing was done to improve matters ; the Government, in constant financial difficulty, renewed bills as they became due, raised new loans to pay the interest on the old ones, and fell back on the policy of depreciating the currency still further In 1549 the Lords of the Council, having themselves supplied funds for suppressing the revolts, repaid themselves from the profits on the coinage of silver money, throwing base coin into circulation to the amount of £150,000. The following year the plate of the churches was seized under pretext of zeal against superstition, and in addition the gold, silver and jewels were ordered to be stripped from the covers of the books in the Library at Westminster for the benefit of the Treasury

Some light is thrown on the difficulties of the time by a letter from a London merchant to Cecil, in which he complains of the bad effects on trade of the recent fall of the exchanges, which fall "cometh for fear of the littleness of our silver coin, and is the only cause that all we the merchants of England do rob and carry away all the gold in the land to foreign realms, for that it is to a more profit than the exchange Also in June, July, and August last [1549] over £100,000 in gold was driven out of England (and yet did silver coin come into England as

fast, and all for the private gain in coining the silver), for that the pound of gold is richer than the pound of white money, which mischief now present doth cause the gold [illegible] be bought up . . . so that shortly we shall be quit of [illegible] rich money for a base coin , and then shall follow [illegible] eater fall of the exchange, which is the father of all dearth of almost all things that man occupieth. If we in England should coin six years to come so much white money as we have done in six years past of the value that now goeth, the plentifulness of the money and the baseness thereof together should bring our commonwealth to that pass that, if you should give a poor man three shillings a day for his day's labour, yet you should scarce pay him such a hire as he might live thereof, which God defend should come to pass." He points out that the profits to be made from private coinage are the cause of the difficulty, and urges the necessity for speedy redress, though he acknowledges that "to new fine our base coin cannot be done without more charge than may be borne by the King or the Commons." "But," he concludes, "in the meantime and out of hand, for God's sake, sir, see forward some remedy for the other matter, that we, the merchants, carry not away all our rich money and leave the base money here still. Once the excess of the private gain in coining to other men—supposed as to the King—may be taken away and also our base coin of white money called down to 15s. in the pound—though it be not enough, yet will it do great service for the time, and keep many things at a stay, which else will come to misery." The suggestions put forward in this letter were not immediately acted upon, and the attempt in the new coinage, issued in 1550, to return to the former standard of fine gold, failed, owing to the bad condition of the silver, which drove the new gold coins out of the country. An attempt to reform the silver coinage followed in 1551, but was equally unsuccessful. Edward's advisers had at last realized that the value

of a silver coin depended not on its denomination but on the amount of pure silver contained in it. Hence the current money was called down to within a little of its value in bullion. After April 30th the shilling was to pass as ninepence and the groat as threepence, and in August the shilling was brought down to sixpence and the groat to twopence. At the same time good silver money was issued from the Mint, of the standard of 11 oz. 1 dwt. of fine silver to 19 dwts. of alloy, and the new denominations of the crown, half crown, sixpence and threepence were now struck for the first time. The reform failed because, though the base coins were cried down, they were not called in, and thus good and bad money were circulating side by side As a result the good coins recently struck very soon left the country, or were melted down and turned into base coin by the numerous private coining establishments, which had been set up in England and on the Continent, and the only advantage gained was that the Council abstained from further peculation.

Mary began her reign with good financial resolutions, but religious matters claimed most of her attention, and want of money soon led her to fall back on the old system of issuing coins of base metal, which she forced into circulation at their nominal value As a result Elizabeth, when she came to the throne, found the currency in a state of the greatest confusion, for not only was the country almost denuded of good money, but coins of the same denomination varied in weight and standard of fineness. There were, for instance, three sorts of shillings in circulation—a few of the pure shillings recently issued by Edward VI, the shillings of the first year of Mary's reign of the standard of 10 oz. of pure silver to 2 oz. of alloy, and the shillings of the last years of the reign of Henry VIII, of the standard of 11 oz. of pure silver to 1 oz. of alloy There were four sorts of testers or sixpences current

made of metal containing respectively 8 oz., 6 oz., 4 oz., and 3 oz. of fine silver to the pound. Testers of the first three classes had originally been issued as shillings and had subsequently been called down to sixpence because of the large quantity of alloy which they contained, and they were all equally of the value of 4½d., for those "which lacked in fineness exceeded in weight", the fourth kind of tester was not worth more than 2½d Very soon after her accession Elizabeth turned her attention to the currency, and, after one or two preliminary measures forbidding the export of money and reviving the Act of Edward IV that declared exportation felony, a thorough scheme of reform was planned, by which the entire currency was to be called in and its place supplied by new coins of a high and uniform standard.

"The first necessity was to ascertain the proportion of good and bad money which was in circulation A public inquiry could not be ventured for fear of creating a panic, and the following rudely ingenious method was suggested as likely to give an approximation to the truth. 'Some witty person was to go among the butchers of London, and to them rather than to any other, because they retailed of their flesh to all manner of persons in effect, so that thereby of great likelihood came to their hands all manner of base coin; and to go to a good many of them—thirty-six at least—and after this manner, because they should not understand the meaning thereof, nor have no suspicion on that behalf, requiring all of them to put all the money that they should receive the next forenoon by itself, and they should have other money for the same; promising every one of them a quart of wine for their labours, because that there was a good wager laid whether they received more money in the afternoon—whereof nine score pounds being received of the butchers, after the manner aforesaid, being all put together, then all the shillings of 3 oz. fine and under but not above should

be tried and called out—as well counterfeits after the same stamp and standard as others ; and after, the rest of the money might be perused and compared one with another' Either by this or some other plan, the worst coin in circulation was found to be about a fourth of the whole, while the entire mass of base money of all standards was guessed roughly at £1,200,000" (Froude)

Several schemes for reform were suggested, and finally, by a proclamation issued in September, 1560, the base money was cried down to three-fourths of its nominal value, the Queen promising to give good money at this rate for all the debased coins received at the Mint. The public were invited to hand over their base silver to persons specially appointed to receive it in every market town, and to stimulate the collection a bounty of threepence was promised on every pound's worth of silver brought in

The people were told that the expense was to be shared between the Crown and the nation, but as a matter of fact the whole of the cost was borne by the people, the Queen making a considerable profit on the transaction, and it was probably the unpopularity of the measure which caused the Government, two days after the proclamation had been issued, to publish an explanation justifying their action, and showing the necessity for the change :—

"First of all it is known that the honour and reputation of the singular wealth, that this realm was wont to have above all other realms, was partly in that it had no other current money but gold and silver . . . now of late days, by turning of fine monies into base [it] is much decayed and daily grown in infamy and reproach and therefore is thought necessary to be revived Wherein like as Her Majesty for her part meaneth to be at great charges, so every good English subject ought to be content, though it seem some small loss at the first. . Also by continuing of the base monies divers persons both in foreign parts and within the realm have counterfeited from time to time no

small quantity . . . and carried out of the realm for these base monies the rich commodities of the same . . . so as counterfeiters and such like have, for small sums of money counterfeited, carried out six times the value in commodities of the realm. . . . By the means also that these base monies were current divers subtle people have changed the same for the gold and fine silver monies of this realm and have transported and carried out the same gold and silver, so as although there hath been coined great quantities of gold and silver, yet no part thereof is seen commonly current, but, as it may be thought, some part thereof is carried hence, and some, percase, by the wiser sort of people kept in store, as it were to be wished that the whole were. . . . Also by continuance of this sort of base monies, although Almighty God hath given now of late years plentiful increase by the earth for which He is to be thanked . . . yet the prices of all things growing and coming from the earth hath immeasurably and daily risen."

Whether the people liked it or not the change was successfully carried through, the return of the base money to the Mint being probably hastened by the fear that the nominal value of the coins would shortly be still further reduced. The amount of base money in the country had been estimated to be of the nominal value of £1,200,000; how nearly this approached to the truth is uncertain, but base money appears to have been brought into the Mint to the extent of 631,950 lbs. in weight, for which the Mint paid out in good money the sum of £638,000. When melted down the base money yielded 244,416 lbs. of fine silver, and this was coined into money to the value of £733,248. Thus the Crown gained £95,000, less the cost of refining and coining and other incidental expenses. The standard of fineness adopted was 11 oz. of fine silver to 1 oz. of alloy, and the weight of the coins was reduced, the silver penny now weighing only a third of what it had weighed in the thirteenth century.

One of the incidental difficulties brought about or increased by the recoinage, and tending to make it unpopular, was the insufficiency of small money, for most of the new coins issued were shillings and groats. To meet the difficulty traders had for some time issued private tokens in lead, tin, latten and leather, generally in the form of halfpence and farthings, "to the great derogation of the princely honour and dignity and to the great loss of the poor, since they were only to be repaid to the same shop whence they were first received." Though these tokens were not, as a rule, regarded favourably by the authorities, their issue was not illegal, and, although their circulation was purely local and their value depended entirely on the credit of the trader who issued them, it is difficult to see how the ordinary internal trade of the country could have been carried on without some such system. In 1561, when it was declared by proclamation that the base halfpence and farthings still in circulation would only be accepted at their bullion value, silver coins to the value of $1\frac{1}{2}$d. and $\frac{3}{4}$d. were issued by the Mint; suggestions for a copper coinage were made, but were not carried into effect till the next reign.

Thorold Rogers, in his "Economic Interpretation of History," put forward the theory that it was only after this recoinage of Elizabeth that it became customary to make payments by tale instead of by weight, and that the gradual reduction in the weight of the silver coins which had been going on since the fourteenth century had consequently caused no inconvenience because it had had no effect, real prices remaining unchanged; the fact that the penny weighed about one-third of its weight in the fourteenth century, whilst prices had risen three times, he held gave weight to the argument. It is now a more generally accepted opinion that from early times payments had been made both by weight and by tale, in more important transactions the money paid would probably be

weighed, but payment by tale was usual for the petty transactions of ordinary life and business The law of Henry V, stating that clipped and worn coins were only to be accepted by weight, is in itself proof that payment by tale must have been general. At the end of the sixteenth century it seems to have been the regular practice to weigh gold coins, and in 1587 every borough, city, and town corporate was required to keep, for the use of all, "upright balance and true weights for the weighing of every piece of gold lawfully current in the realm." Many private traders kept scales for weighing gold as well, and in the seventeenth century scales which could be carried about in the pocket seem to have been part of the ordinary equipment of the London merchant.

The results of Elizabeth's reforms were on the whole satisfactory, and the prosperity of the reign is due in great measure to freedom from monetary difficulties. The outflow of gold was checked by the adoption of a ratio to silver (11 79 . 1) which was very nearly the same as that of France and slightly higher than that of Germany, and thus not only was the outflow of gold prevented, but the influx of precious metals from the Continent was encouraged; throughout the reign there was very little change in the Mint rates of bullion, the absence of proclamations on the subject being sufficient proof that the exchange was favourable to England. Only during two periods—from 1572 to 1576 and after 1597—were there complaints of the exportation of good coin. In 1572 the difficulty was caused by a series of plakkaats in the Netherlands, which altered the monetary situation for the whole of Europe, and, to check the drain of metal which resulted, a proclamation was issued forbidding any coins to be accepted below a certain weight. In 1597 complaints arose again from similar causes:—"If good provision be not foreseen, the coins of gold and silver of England will flow over to the Low Countries as fast as

they can be coined." Consequently there was in 1601 a final revision of the Mint prices of metals, but the Government made the serious blunder of lowering the ratio of gold to silver instead of raising it, with the inevitable result that gold continued to flow out all the more rapidly, and this paved the way for financial difficulties in the next reign. This mistake was especially disastrous at a time when the production of silver was going up by leaps and bounds, when consequently the market value of gold bullion was rising rapidly relatively to that of silver, and when the currency of other European countries was being adapted to the new commercial ratios between the two metals.

The period of the geographical discoveries was a period of trade expansion, but prices were at first only very slightly affected, for the trade revolution of the sixteenth century hardly touched England. There was no rise at all before 1540, except in the case of goods from the East, where it was due to the increased demand for Eastern produce and to the alterations in the routes of trade; between 1540 and 1582 the rise was due only to debasements of the currency. The reasons why prices rose so slowly were partly the extravagant use of the precious metals in the arts—for gold and silver lace, plate, and gilding—partly the custom of hoarding money, partly the fact that coin was not yet exclusively used and labour was still paid to a certain extent in rations, and partly that the precious metals from the New World came in slowly at first, and were only very gradually diffused throughout Europe

In the first period of the rise of prices—from 1540 to 1582—the change was due to depreciation of the coinage; and as it was the silver currency that was chiefly affected, and silver was the ordinary measure of value for internal prices, all articles of home produce became dearer. A rise of prices due to a depreciated currency gives a tem-

porary appearance of prosperity, for the higher prices just at first mean higher profits, the formation of capital goes on rapidly, and there is more work and a quicker return for expenditure But, as this inflation of prices is not based on any real increase of wealth, the appearance of prosperity is fallacious, good money is soon driven out of the country by the debased currency and widespread poverty results. The true cause of the disturbance of prices was not recognized at the time; there was a general opinion that it was due to combinations among middlemen, and in the reign of Edward VI laws were passed against engrossing the necessaries of life and against conspiring to raise the price of food.

The following passage, quoted by Cunningham, shows that the great rise in the price of wool was thought to be due to speculation among graziers: "They that have great numberment of sheep must needs have great store of wool, and we cannot think who should make the price of wool, but those that have great plenty of sheep. And we do partly know that there be some dwelling within these shires (Oxfordshire, Buckinghamshire, Northamptonshire), rather than they will sell their wool at a low price, they will keep it a year or twain, and all to make it dear and to keep it a dear price." The end of the reign of Henry VIII and the reign of Edward VI was a time of increasing discontent and poverty, for wages did not rise in proportion to the rise of prices, and artisans found it extremely difficult to live on their earnings. The "Dialogue concerning the Weal of England," written about 1549, complains that though artisans were paid more than before, yet they could not live on their wages, and that men had no money to spare for public purposes; that there was a great dearth of commodities, not only of English goods but of imports, that everything cost about a third as much again as a few years before, and that

men were unable to live with £200 as well as formerly with 200. marks.

The labourers and artisans suffered more than the middle classes from the depreciation, for wages were paid in the debased coin according to its nominal value "The working man was robbed without knowing how or why, while the tradesmen and farmers, aware that a sixpence was not a sixpence, defied the feeble laws which attempted to regulate the prices of produce, charged for their goods on a random scale, and secured themselves against loss by the breadth of margin which they claimed against the consumer" (Froude).

Roughly speaking, in this period prices rose more than 100 per cent. whilst wages rose only 50 per cent., and owing to the condition of the coinage trade sank down almost to the point of barter. The depreciation of the fourteenth and fifteenth centuries came at a time when prices were tending to fall, and checked that tendency ; the depreciation of the Tudors, which affected the quality of the coins as well as their weight, came at a time when prices already showed a tendency to rise, and increased the material difficulties of the change by inflating prices out of all proportion to the increase in the supply of the precious metals. The prices of foreign goods rose at once in proportion to the debasement, and this unsettled the prices for articles of home production ; these rose as well, but the difficulties of communication and local ignorance as to what was going on elsewhere prevented them from rising equally. As the good money was gradually melted down or driven out of the country, this rise of prices was not accompanied by an expanding but by a decreasing currency, and this attempt to meet an expanding trade with a diminishing and almost valueless coinage caused industrial and commercial disaster.

The primary necessaries of life soon rose in price.

Wheat was now 15s. the quarter, showing a rise of 2·40 per cent.; and other crops rose in proportion; oxen were sold for 70s. 7¼d., sheep for 6s. 4d., and wool for 7¼d. per pound; farming produce and salt increased in value on an average 2·53 per cent Dairy produce rose considerably, for the peasantry were now poorer, and with the increase of sheep farming, dairy farming declined; cheese was now 1½d. per pound, butter 2⅝d. per pound, and 120 eggs 2s 6d. The prices of manufactured goods were not affected to the same extent, for, as wages did not rise in proportion to the rise of prices, the change was seen least in those articles whose value depended mainly on labour, though textile goods seem to have felt the full effect of the change; bricks were sold at 11s. 3d. per thousand, raw iron at 10s. 6½d. per cwt., and cloth at 161s. per 24 yards. The cost of boarding and lodging a labourer, which may be taken as a measure of the purchasing power of money, had risen about 300 per cent. In 1542 the expense of boarding and lodging a labourer was reckoned at 2d. a day; in 1551 it had risen to 2s 6d. a week, and in 1553 to 3s. 6d a week, and in 1562 the cost of victualling a man in the dockyards was reckoned at 4s a week

There is a great difference of opinion among economists as to the effects of the new supplies of the precious metals on prices Schoenhof, for instance, denies that they came in in sufficient quantities to have any appreciable effect, and adopts the theory of Thorold Rogers that payments until the recoinage of Elizabeth were made by weight and not by tale. He considers consequently that the rise of prices in the sixteenth century was only nominal, and that as payments were first made by tale after 1562, when coins weighed only a third of what they had done in earlier days, real prices remained steady, or, in other words, that the purchasing power of the pound weight of silver was unaltered, though this pound weight was now divided into 60 shillings instead of into 20. On the other hand,

it is difficult, if this view is accepted, to understand why the coinage should ever have been depreciated, for, if payments were invariably made by weight, there can have been no object in lessening the contents of the coins, and it also fails to explain why the rise of prices began before 1562. It is the opinion most generally accepted that in the latter part of Elizabeth's reign the influx of precious metals was so great as to cause a very considerable rise of prices, and this rise was all the more marked and sudden because the entrance of the new supplies into the country had been postponed by the debasement of the currency, which had made it impossible to keep good coins in circulation. The rapidity with which the change took place caused some difficulty, but on the whole the rise of prices brought about by the increased supplies of the precious metals benefited the country and was favourable to the rapid growth of industry and commerce; profits were increased, the formation of capital was encouraged, and in spite of higher rents farmers were able to accumulate savings. People with fixed incomes, among whom must be counted the landed gentry and the Crown, suffered from the change, and labourers and artisans suffered as well, for wages, as in Tudor times, did not rise in proportion to the rise of prices. Between the years 1593 and 1602 the price of wheat had risen to 34s. 10¼d. per quarter, oxen to 103s. 10d., sheep to 9s. 6½d., wool to 9d. per pound. Cheese was 2¾d. per pound, butter 4d. per pound, and 120 eggs, 3s. 7¾d. Bricks were 13s. 2d. per thousand, raw iron 13s. 6d. per cwt., and cloth 147s. 4¾d. per 24 yards.

CHAPTER IV

THE EARLY STUARTS

In the history of the coinage there is very little to mark off the period of the Stuarts from that of the Tudors. The difficulties with which the first two Stuart kings had to deal were similar to those of Tudor times and a similar line of policy was adopted to meet them. The complexity of the currency continued and there was not very much change in the denominations of the coins.

The distinction between Crown and Standard gold was still maintained, and in the reign of James I marks of value were first put upon gold coins. James issued in crown gold the unite or sovereign, which marked the union of the Crowns of England and Scotland, the half sovereign or double crown, the crown and half crown, and the thistle crown, valued at 4s. The laurel was struck in 1619, and was the pound sovereign issued at a somewhat reduced rate, in order to avoid the inconvenience caused by raising the value of the gold coins. In standard gold were issued the rose real or rose royal, valued at 30s., and its half, the spur royal, valued at 15s.; the angel, valued at 5s., and the half angel were also issued in standard gold but were not struck after 1610. The thistle crown, laurel, rose royal and spur royal were issued only in this reign. Gold coins current at £3 and silver coins of the value of 20s. and 10s. were struck by Charles I, but were not continued after his reign. The chief change in the silver currency was the gradual disappearance of

the coins under the value of 6d., and the consequent necessity of providing some form of coinage of small value led to the striking of copper coins, which had been suggested in the last reign. James disliked traders' tokens, and in 1613 he granted a patent to Lord Harrington to issue copper farthings weighing 3 grains. These coins were, however, not popular, partly because of their small size and partly because of their slight intrinsic value, and consequently, though traders' tokens were declared to be illegal, they still continued in circulation. Copper farthings were issued also in the reign of Charles I, but still under patents granted to individuals. No copper money was struck officially during the Commonwealth, though dies had been prepared for that purpose; a few small silver coins of the value of 2d, 1d., and ½d. were struck, but the dearth of a small coinage was still supplied by traders' tokens, which were struck by the principal tradesmen in all the large towns

Great difficulty was found during the Civil Wars in providing the King with money, and there were various methods by which the country was supplied with a coinage during this period. (1) Money was issued by order of Parliament at the Tower Mint. (2) Money was struck by local mints established after the outbreak of the war in several important places under royal control, a good deal of money, for instance, was coined at Oxford from the silver plate belonging to the colleges and to private persons. (3) Money was issued in towns and castles in a state of siege. This siege money was struck only by adherents of the King, it consisted almost entirely of silver, and some of the coins were stamped with the names of the castles or towns where they were struck. In some cases the plate from which these coins were struck was not even melted down, and the coins were simply pieces of metal of irregular shape cut out and then stamped and engraved with a device

No money was issued during the King's life without his image and superscription, but when in 1649, after the abolition of the kingship and the House of Lords, Parliament assumed sovereign rights, money was issued by their style and authority. Gold coins were issued of the value of 20s., 10s., and 5s., and silver coins of the value of 5s., 2s. 6d., 1s., 6d., 2d., 1d., ½d. One side of the coins was stamped with the English arms, with the inscription "The Commonwealth of England"; the other side bore the arms of England and Ireland, with the inscription "God with us" During the Protectorate, and even as early as 1651, coins were issued bearing the image and superscription of Cromwell, but it is doubtful whether they ever circulated as current coin in the country.

Throughout the Stuart period the Government was still waging an incessant struggle to keep a good supply of precious metals in the country, but at first with very little success. English money was overvalued relatively to bullion; *i.e.*, the English Mint did not pay in coin for bullion at such a high rate as the mints of other countries, and consequently very little bullion was brought to it to be coined, and English money was melted down and exported. Moreover, the constant variations of the ratio between gold and silver always meant that the metal that was relatively the cheaper tended to be driven out of the country, and so there was always a scarcity of either gold or silver, and sometimes a scarcity of both. More and more, however, Government was becoming impressed with the necessity of keeping up a good supply of gold, for gold was now being more generally used for international payments, and it was only when there was a good stock of gold in the country that the Government felt financially secure. A scarcity of silver on the other hand was not so serious, though, as it was the coin in which wages were paid and most of the internal trade was carried on, a great deal of inconvenience was caused to the people. To keep

up the gold supply and prevent exportation gold was steadily overrated, and the ratio of gold to silver, which in the reign of Elizabeth had been about 11 . 1, rose in the reign of James I to 13 · 1, and in the reign of Charles II to 15 . 1. Hence, as the English Mint paid such high prices for gold, it was more profitable to bring gold to the Mint than silver, and consequently there was through the greater part of this period a great scarcity of silver ; heavy silver coins were melted down and exported, and those that remained were under due weight.

At the beginning of the reign of James I, as the result of the blunder of Elizabeth in lowering the ratio of gold to silver, gold tended to flow out of the country. To meet the difficulty the ratio was raised in the second year of the reign from 10·90 : 1 to 12·15 : 1, with the result that then "and for six years after there was more plentie of gold than ever was before" (Stow). The relief, however, was only temporary, for the rise in the value of gold coins was not equal to the rise in the value of gold bullion relatively to silver bullion in the market, and soon the export of specie began again. This was a source of great anxiety to the Privy Council, and after much discussion the only possible remedy was adopted, and the ratio of gold to silver was raised still further, the current value of gold coins being raised 10 per cent. The reason given for the change in the proclamation was "that the unite or gold coin that passed for 20s in England was valued in foreign countries, and especially in Holland, at 22s.," *i.e.*, at 10 per cent. more than the rate at which it was current in England; the gold sovereign was now to be current in England also for 22s., and the ratio of gold to silver was by this step raised from 12·15 : 1 to 13·32 : 1. This change was supported by a proclamation forbidding the export of bullion and the melting of gold for the manufacture of gold braid and plate, and limiting the exports of the East India Company to £6,000 in bullion Government had now

erred in the opposite direction, for the rise in the ratio of gold was too great and it began to have a bad effect on the stock of silver:—"This last raising of gold ten in the hundred did bring in great store thereof, more than we were accustomed to have in the kingdom, but it carried away all or the most part of our silver" (Mun). A letter from the Lords of the Privy Council to James, written in 1618, complained of the scarcity of silver at the Mint and of the great abundance of gold. During the last seven years of Elizabeth's reign more than eight times as much silver as gold was coined, whilst between the years 1609 and 1616 gold was coined to the value of £1,546,309, silver only to the value of £57,609.

As a result of these sudden and violent changes, the country was brought face to face with a great monetary crisis—one of the most serious in English history—which began about 1613 and reached its height about 1622. At the beginning of this period there was a scarcity of both gold and silver; the change in the ratio soon checked the outflow of gold, but nothing was done to help silver; and during these years hardly any silver bullion was brought to the Mint to be coined, with the exception of what was brought from Wales. There was very little trade with Spain because of the wars, in Holland and France silver bullion was worth 5s. 4d. an ounce, whilst the English goldsmiths were willing to pay 5s. 3d. an ounce for silver bullion and coin, which they melted down and converted into plate, wire, braid, etc. Consequently, as the Mint in England paid only 5s. an ounce for silver bullion, there was no profit to be gained by taking it there to be coined, the good silver coins disappeared, and only light money was left in circulation as currency. By 1620 the disorganization of trade caused by this scarcity was so great that the amount of wool exported was only a third of what it had been in previous years. The following year the merchants of the leading

companies were asked to give advice on the matter, and they declared that the difficulty was due to the under-valuation of English coins abroad, *i.e.*, that English coins were worth much less on the Continent than in England; consequently English merchants who wanted to buy foreign goods had to pay for them at such high rates in English money that it was impossible to sell them in England at a price that would repay them. In 1622 the difficulty had increased so much that trade was at a stand-still, a large number of men were out of work because the clothiers could not get a market for their cloth, and stocks of cloth were accumulating and could not be sold. The justices of Gloucester reported that "the people begin to steal and many are starving; all trades are decayed; money very scarce"; and similar reports came from Somerset: "wools and cloths are grown almost valueless, and the people are desperate for want of work." Owing to the general poverty taxes could not be collected and only produced a fraction of the estimated amount. In the hope of mitigating the evil the export of raw wool and yarn was forbidden to prevent the manufacturing industry leaving the country, and people of quality in London and Westminster were ordered to go into the country and live on their estates in order to relieve the poor. To encourage the flow of silver to the Mint it was suggested that the pound weight of silver should be coined into 65s. instead of into 62s., as before

The same difficulties continued through the reign of Charles I and the Commonwealth, but they were never so acute as in the reign of James I, and no further change was made in the denominational value of the coins. The drain of gold to France and the Netherlands, which was again becoming a difficulty, was checked when the ratio of gold to silver was raised to 15 . 1, but this change made it so much more profitable to bring gold to the Mint than silver that the coinage of silver practically ceased and

the difficulties from the scarcity of silver were greater than before.* Rice Vaughan, a contemporary writer on currency questions, said that owing to the value of gold being raised 2s. in the pound there was a great deal of gold coined but very little silver, so that "a man may go into a great many shops before he can get a 20s. piece to be changed, for the greatest part of the paiements is now in gold, contrary to the former times." This evidence is confirmed as well by Rushworth :—" There was [1632] such plenty of gold and scarcity of silver that the drovers and farmers who brought cattle to Smithfield would ordinarily make their bargains to be paid in silver, and that it was usual to give twopence and sometimes more to change a 20s. piece of full weight." By 1640 there was not one million's worth of silver coin in the kingdom, and between the years 1646 and 1649 the Mint had to be closed because of the scarcity of bullion.

These difficulties do not seem to have been so pressing during the Commonwealth period , probably some relief had been given by the large amount of silver which had been melted down and put into circulation as coin during the Civil Wars. In March, 1649, Parliament was petitioned by Fairfax and the Council of Officers to reduce the abuses of clipped money, and a committee was appointed to consider currency questions ; the rate of interest was reduced by law from 8 per cent. to 6 per cent., and a bill was brought in to prohibit the exportation of gold and silver bullion. This bill was discussed several times but never reached the final stages—" more mighty business did intervene ;" and generally speaking during the period political matters were so urgent that economic questions, though not entirely neglected, could receive little attention.

In the seventeenth century prices were still steadily rising, for the effect of the influx of the precious metals did not culminate, according to Adam Smith, until 1640, though the rise in the early part of the seventeenth

century was not quite so great as it had been in the last part of the sixteenth. In the seventeenth century population nearly doubled; this was only made possible by improvements in agriculture, and especially by the introduction of winter root crops and artificial grasses, and the increased demands for food supplies kept prices fairly high. The average price of wheat for the first half of the century was 38s 11¾d. per quarter, for the last half, 40s. 5d.; the price of oxen in the first half of the century was 142s. 2d, though again the increase may have been partly due to increase in weight, and in the last half, 143s 8d Sheep had risen less in proportion, the average price being 10s 7½d for the first half of the century and 11s. 1d. for the last half, whilst the price of wool declined from 1s. to 9d. per lb Dairy produce rose slightly and remained fairly steady through the century, the average prices being for butter 5⅝d. per lb., for cheese 3¾d per lb., and for 120 eggs, 3s. 3½d. The price of manufactured goods on the other hand increased steadily; the average price of bricks rose during the century from 14s 8½d. to 18s. 8d per thousand, and cloth rose from 181s. 10½d. to 195s 7d. per piece of 24 yards. The last years of the century were years of specially high prices, but this seems to have been due mainly to a series of bad harvests, and throughout the century prices do not seem to have been much affected by currency questions.

CHAPTER V

THE EARLY HISTORY OF PAPER MONEY AND BANKING IN ENGLAND

BUSINESS transactions in the Middle Ages were carried on chiefly in coin or bullion, but the advantages of paper money and credit were not entirely unknown, and as early as the twelfth century Bills of Exchange were used and a rudimentary form of banking had arisen in some Italian towns.

A Bill of Exchange in mediæval times "meant an obligation to pay the value of a certain amount of the money of one country in the money of another at a certain rate of exchange" (Macleod). If, for instance, A,—a London merchant, owed £100 to B,—a French merchant, and B owed an equivalent sum in French money to another London merchant,—C, B would draw a bill on A and send it to C, and C, on presenting the bill to A, would be able to recover the money due to him from A, instead of from B; thus the two transactions would be settled without the employment of money, and the expense and trouble of transmitting and exchanging coin would be avoided. Bills of exchange had been known to the Romans, and their use, which had probably never quite died out, was revived by the Florentines in the twelfth and by the Venetians in the thirteenth century, and was greatly extended at the time of the Crusades by the papal agents who collected sums of money for the Pope in the countries that acknowledged his authority. It is difficult to deter-

mine when they came into general use in England As early as 1229 there were papal agents in this country, and the Pope drew bills on English bishops and abbots which they were obliged to honour on penalty of excommunication. In the reign of Edward I was passed the first law—the Statute of Merchants, 1283—recognizing mercantile obligations, and in 1303 a statute passed for the protection of foreign merchants enacted that they might pay customs duties on their exports by bills on their partners or principals Promissory notes payable to a man or his assigns were known in the reign of Edward IV, and in the reign of Richard II bills of exchange are referred to as a means of conveying money out of the realm, though not as a process in use among English merchants.

The general use of bills of exchange lessens the necessity for transmitting bullion, and if the exports of a country exactly balanced its imports there would be no need for the transmission of money at all Exports and imports, however, never exactly balance, and when a country's imports exceed its exports it is obliged to send specie to the extent of the difference; the balance of trade is then said to be unfavourable to that country. An unfavourable balance of trade would generally result in an unfavourable condition of the exchanges as well. If, to take an illustration, England received more goods from France than she sent there, there would be a larger number of merchants in England making payments to France than there were receiving payments from France; consequently there would be a shortage of bills on France, and, as it is cheaper and more convenient to settle a debt by buying a bill on a foreign country than by sending coin, a merchant, rather than send money, would be willing to pay more for the bill than its face value; bills on France would then be said to be at a premium Hence the effect on the exchanges of an unfavourable balance of trade is much the

same as that of a depreciated currency—namely, that an increased amount of money is required to settle debts with foreign countries.

Before the thirteenth or fourteenth century the lending of money at interest formed no part of business life. The taking of interest for money lent, or usury, was forbidden by the Church on the ground that it cost a man nothing to lend to another money which he did not want to use himself, and consequently to receive payment for it was dishonest. As a result, moneylending was for a long time in the hands of the Jews, and, as they had a practical monopoly and their chances of getting the money returned were precarious, enormous rates of interest were charged. But it must be remembered that the Jews lent money mainly to nobles in financial difficulties, and it was not until trade began to develop that moneylending for ordinary business purposes became general. When this was the case the papal laws against usury were soon evaded, and on various pretexts payment was taken for money lent. In England, although the laws forbidding usury were not finally repealed until the latter part of the sixteenth century, the Lombard merchants in the thirteenth and fourteenth centuries began to lend money at interest in defiance of the laws; they also made extensive use of the system of bills of exchange to remit money payments to their own country.

The business of banking in the Middle Ages began with the commercial renaissance of the twelfth and thirteenth centuries in North Italy The earliest public bank was the Bank of Venice, established in 1157, when the State of Venice, having fallen into financial difficulties and borrowed large sums of money from citizens, formed these public creditors into a corporation with peculiar privileges. Warrants given for a claim on the bank passed freely from hand to hand and were soon found to be as good as money, sometimes even bearing a premium. It was not until 1587

that this Venetian bank became a bank in the modern sense of the word; the coins of all nations passed through Venice, and merchants bringing coin to the bank received in return notes which were promises to pay bullion to the intrinsic value of the coins brought in. The Bank of Genoa, founded in 1407, also owed its origin to the financial difficulties of the State, it was a trading and not a deposit bank, and was ruined when Philip of Spain repudiated his debts in 1596. Private banking flourished chiefly in Florence; here there were in the fourteenth century between seventy and eighty private bankers, who soon gained such an eminent position in finance that they were entrusted with the collection and administration of the public revenues, and the money transactions of almost every country of Europe passed through their hands. The failure of the houses of Bardi and Peluzzi in 1345, when Edward III repudiated his debts to them, caused widespread ruin in Florence. These early Italian banks were for the most part "giro" or circle banks; "notes issued on deposits of specie placed in the bank passed from hand to hand, the deposit remaining untouched until the final liquidation of the whole circle of bargains." The banker made no use of the money and was paid a fee for guarding it.

A much wider influence was exercised by the Bank of Amsterdam, founded in the early days of the seventeenth century, when the Netherlands were the great centre of European trade The bank was established to cope with the difficulty caused by the influx of bad coin from all parts of Europe, which had reduced the currency 9 per cent below its nominal value and made it difficult for the merchants to get enough good money to carry on their trade The bank received debased money of all sorts at its intrinsic value and coined it into good money, giving credit for its value in bullion, no seignorage was taken and deductions were only made to cover the expenses of coinage. Under

the stimulus of what was practically free coinage, large quantities of precious metals poured into Holland and a local rise of prices resulted At first gold and silver were placed on an equal footing, as both were equally used as the medium of international exchange, and the constant exportation of silver for the Eastern trade was a safeguard against any overwhelming depreciation ; in 1648, however, the free coinage of silver ceased, and thus the importation of silver bullion was discouraged. In the seventeenth century the Netherlands could control the exchanges and the balance of trade was always in their favour. In the long run the country gained by this, but the Dutch, equally with the rest of the monetary world, were losers by the secret traffic in coins, which always took away the good money and substituted the bad. Money-dealers soon found that certain coins tariffed on an equality with one another were not really of the same value, and these variations of the legal from the market value afforded, as usual, opportunities of gain for the individual This bank was the property of the city of Amsterdam, and the bank money, as its standard could always be relied upon, soon bore a premium.

In England the work of dealing in money was in private hands, and in the sixteenth and seventeenth centuries the goldsmiths enjoyed a practical monopoly of this business. The goldsmiths were in the first instance, as their name implies, workers in the precious metals ; they were soon dealers in bullion as well, and when in the reign of Henry VIII the exchange of coins ceased to be a monopoly of the Crown, this work too fell into their hands They seem to have taken full advantage of the opportunities thus opened to them to pick out and melt down full weight coins ; and whether they sent the bullion to the Mint to be coined, or sold it to the refiners, plate workers, or merchants, depended on whether the market price of bullion were higher or lower than the Mint price. Hence the goldsmiths were

very soon held responsible for the debasement of the coinage.. "Apperceiving the new coin of gold to be better than the new coin of silver that was made to countervalue it, they picked out all the gold as fast as it came forth of the Mint and laid that aside for other uses, so that now we have but little more than the old current" ("Discourse of the Commonweal," 1549). It was on this ground also that Charles I in 1627 tried to re-establish by proclamation the work of exchanging coins as a royal monopoly :—"And whereas ourselves and divers of our predecessors have for some time past tolerated a promiscuous kind of liberty to all, but especially to some of the mystery and trade of goldsmiths in London and elsewhere, not only to make the said exchanges but to buy and sell all money or bullion, and from thence some of them have grown to that licentiousness, that they have for divers years presumed, for their private gain, to sort and weigh all sorts of money current within our realm, to the end to cull out the old and new moneys, which either by not wearing, or by any other accident, are weightier than the rest, which weightiest moneys have not only been molten down for the making of plate, etc, but even traded in and sold to merchants and strangers, etc., who have exported the same, whereby the consumption of coins has been occasioned, as also the raising of the silver even of our own moneys to a rate above what they are truly current for, by reason whereof no silver can be brought to our Mint but to the loss of the bringers, etc. For the reforming of all which abuses we have, by the advice of our Privy Council, determined to assume our said right, for our own profit and the good of the realm." The following year, as dissatisfaction was caused by the re-establishment of the office, the King published reasons to justify his action. The goldsmiths, he said, when the office of Royal Exchanger was dropped in the reign of Henry VIII, began "to leave off their proper trade of goldsmithrie, *i.e.*, the working and

selling of new gold and silver plate and manufacture, the sole intent of all their charters, to turn exchangers of plate and foreign coins for our English coins, although they had no right to buy any gold or silver for any other purpose than for their manufactures aforesaid, neither had any other person but those substituted by the Crown a right to buy the same. . . . They have raised the price of silver 2d. per ounce above the value of the Mint, which thereby has stood still ever since the eleventh of King James . . . that for above thirty years past it has been the usual practice of these exchanging goldsmiths to make their servants run every morning from shop to shop to buy up all weighty coins for the mints of Holland and the East countries, whereby the King's Mint has stood still." A petition against the revival of the office of Exchanger sent to the King by the Goldsmiths' Company of London and by the London Corporation had no effect, but the office was not continued after the death of Charles I, and then the work fell again into the hands of the goldsmiths.

In addition to their work as dealers in bullion and exchangers the goldsmiths were also the pawnbrokers of the time, and every goldsmith kept a retail shop for the sale of gold and silver plate, which could always be easily and quickly converted into coin if necessary. A German traveller in London in 1593 describes how he saw in Lombard Street "all sorts of gold and silver vessels exposed to sale, as well as ancient and modern coins in such quantities as must surprise a man the first time he sees and considers them." The wealth of Gresham, for example, who was one of the best known of the goldsmiths in the reign of Elizabeth, consisted chiefly of gold chains, and in the Civil Wars it was the plate of the nobility and gentry that helped to supply the King with money.

The reign of Charles I marks a period of transition in the history of the goldsmiths when, from being mainly

moneylenders and dealers in bullion, they became the bankers of the community, and received deposits on a large scale. In the early part of the seventeenth century merchants had been in the habit of depositing bullion in the Mint at the Tower, under the guardianship of the Crown, for security and convenience. In 1640 the King was in great need of money, he had bought up large quantities of pepper from the merchants on credit and had sold it for ready money at a great loss, and, as the proceeds were quite insufficient to tide him over his difficulties, he seized the money of the merchants in the Tower, to the value of £120,000. The merchants, who required this money to meet their own debts, remonstrated strongly with the Council, and finally agreed to let the King have £40,000, on receiving adequate security for its repayment with interest. This incident gave such a shock to public confidence in the royal credit that merchants in future preferred keeping their money at home to lodging it in the Tower. This change of custom, however, brought other difficulties in its train, for it meant that large sums of money had to be entrusted to clerks and apprentices, who were not always honest, and who sometimes made private and illicit profits by lending it out at interest to the goldsmiths unknown to their masters; and soon merchants began to adopt the plan of depositing money themselves with the goldsmiths, receiving interest for it, and having the right of withdrawing it whenever they pleased.

The work of the goldsmiths both as moneylenders and as bankers now greatly increased, and they made their profit by charging a higher rate of interest on money lent than that which they gave on money deposited with them. They frequently advanced large sums both to Cromwell and to Charles II at the rate of about 8 per cent., on the security of the taxes, thus enabling the Government to tide over the interval that had to elapse between the voting

and the collection of the taxes The King, when he required money, sent for the goldsmiths and negotiated with them individually, each merchant stating the sum that he was able and willing to lend. To private depositors acknowledgments for the money received were given in the form of notes—the first kind of bank-notes issued in England—which passed freely from hand to hand, and which, as they were portable and could be easily traced, were found to be convenient instruments for trade Some goldsmiths issued notes far in excess of the money they held, and were able to carry on a business by their credit; many of them made a considerable profit as well by discounting foreign bills.

An account of the work of the goldsmiths is given in a pamphlet, printed in 1676, entitled the "Mystery of the New-fashioned Bankers Discovered":—"Much about the same time—the time of the civil commotions—the goldsmiths (or new-fashioned bankers) began to receive the rents of gentlemen's estates remitted in town, and to allow them and others who put cash into their hands some interest for it if it remained but a single month in their hands, or even a lesser time. This was a great allurement for people to put money into their hands, which would bear interest till the day they wanted it, and they could also draw it out by £100 or £50 at a time as they wanted it, with infinitely less trouble than if they had lent it out on either real or personal security."

It was due in great measure to the goldsmiths that moneylending for business purposes was becoming much more general and that the old prejudice against usury was rapidly disappearing Mun, in the tract "England's Treasure by Foreign Trade," quotes the old saying "that as usury increaseth, so trade decreaseth," but only to disprove it, declaring that, on the contrary, trade and usury rose and fell together. "For, although it is true that some men give over trading and buy lands or put out their

money to use when they are grown rich or old, or from some other the like occasions; yet for all this it doth not follow that the quality of the trade must lessen, for this course in the rich giveth opportunity for the younger and poorer merchants to rise in the world and to enlarge their dealings; to the performance whereof, if they want means of their own, they may, and do, take it up at interest: so that our money lies not dead, it is still traded. How many merchants and shopkeepers have begun with little or nothing of their own, and yet are grown very rich by trading with other men's money! Do we not know, that when trading is quick and good, many men, by means of their experience and having credit to take up money at interest, do trade for much more than they are worth of their own stock? By which diligence of the industrious the affairs of the commonwealth are increased, the moneys of widows, orphans, lawyers, gentlemen, and others, are employed in the course of foreign trade, which themselves have no skill to perform."

Considerable hostility was roused by the new system, and many of the money difficulties of the time were attributed to it. It had been recognized for a long time that the goldsmiths made a practice of melting down and exporting the heaviest coins for their own advantage, and this had often been a cause of complaint against them in earlier days, but now it was specially their work as bankers that was thought to be hurtful to the commonweal. Among others, Sir Dudley North and Sir Josiah Child wrote very bitterly against them. The former had unfortunately lost the first sum of money that he had been induced, with great reluctance, to deposit with them. The latter attributed to their influence the high rate of interest and the scarcity of money The rate of interest was still limited by law, but from 10 per cent. in the reign of Henry VIII and 8 per cent. in the reign of James I, it was now reduced to 6 per cent.; some restriction was

necessary, for, as lenders were few, their practical monopoly would have enabled them to keep the rate exorbitantly high. As it was, Sir Josiah Child accused the goldsmiths of "being the main cause of keeping the interest of money at least 2 per cent. higher than otherwise it would be, for by allowing their creditors 6 per cent. they make moneyed men sit down lazily with so high an interest and not push into commerce with their money, as they certainly would do, were it at 3 per cent. or 4 per cent., as in Holland. This high interest also keeps the price of land at so low as fifteen years' purchase. It also makes money scarce in the country, seeing that the trade of bankers being only in London, it very much drains the ready money from all other parts of the kingdom." Thus the trade of banking "obstructs circulation, advances usury, and renders it so easy that most men, as soon as they can make up a sum from £50 to £100, send it on to the goldsmiths, which doth and will occasion, while it lasts, that fatal pressing necessity for money visible throughout the whole kingdom both to prince and people." The advantage of the new system, however, was so obvious that it took firm root and rapidly increased; its benefits were felt "every hour of every day in every part of London, and the people were no more disposed to relinquish those advantages for fear of calamities which occurred at long intervals than to refrain from building houses for fear of fires, or from building ships for fear of hurricanes" (Macaulay).

The political and financial difficulties of the reign of Charles II were, however, destined to ruin the credit of the goldsmiths, as those of Charles I had destroyed confidence in the Crown. In 1667, when the Dutch fleet was in the Channel, there was a run on the goldsmiths, because it was feared that in the event of a military catastrophe the King would be unable to pay his debts, but the excitement was checked by a royal proclamation

which restored confidence. Much more serious results followed the catastrophe of 1672. The goldsmiths were in the habit of depositing their surplus floating capital in the Exchequer, withdrawing it once a week as they required it to meet their engagements. In 1672 the King, then in great need of ready money, declared that payments from the Exchequer were to be suspended for a year; this meant that the money temporarily deposited by the goldsmiths with the Exchequer, amounting to £1,328,526, was appropriated for royal use, and the goldsmiths had to be content with a promise of interest at the rate of 6 per cent. This act caused widespread ruin, for, though the number of goldsmiths was small, the depositors who had placed their money with them, and whose interests were therefore involved, numbered 10,000; the principal was never repaid and the payment of interest was soon discontinued.

This event showed the necessity for a stronger basis of credit, and at the same time the need for some safe form of investment was very keenly felt. The hoarding of money was at this time very general; and when we hear, for instance, of the father of the Pope having a strong-box made to carry his fortune of £20,000 into the country in the form of specie, it is evident that the safe custody of wealth must often have been a serious problem. It was the financial difficulties of the Government, however, rather than the convenience of the people that was the immediate cause of the formation of a national bank, though its success was due mainly to the fact that it met a great national requirement.

The idea of the establishment of a bank was not new; it had arisen during the Protectorate, for it was at that time that the modern system of payment by cheques and bank-notes (issued by the goldsmiths) first came into pretty general use. It was the necessity of getting money for the French wars that led Montague, the Whig

statesman, to adopt the plan of Paterson for the formation of a national bank, and in 1694 the Company of the Bank of England was incorporated by charter in consideration of a loan to Government of £1,200,000 at 7 per cent., the money was borrowed on the security of the Government, and the whole sum required was subscribed in a few days. The money, when collected, was handed in to the Exchequer, and the Bank obtained the funds which it required for carrying on its work from other sources. It was allowed by its charter to receive deposits and to trade with money deposited with it, deriving its profits from the circulation of the capital so formed. At first it paid interest of 3 per cent. or 4 per cent. to the depositors, while on the money lent to the Government it received interest at the rate of 7 per cent or 8 per cent Though allowed to transact private business, the Bank was not permitted to deal in anything but bills of exchange, bullion, or forfeited pledges, and was strictly forbidden to borrow or owe more than the amount of its capital, unless with special permission from Parliament; if this limit was exceeded, the members could be held liable in their private capacity. The affairs of the Bank were managed by a Governor, Deputy-Governor, and a Council of twenty-four directors, elected annually from among the members of the Company.

The advantages derived from the establishment of the Bank, both by the Government and by the public, were evident from the first :—"The erection of the famous Bank not only relieved the ministerial managers from their frequent processions into the City for borrowing money on the best and nearest public securities at 10 per cent. or 12 per cent. per annum, but likewise gave life and currency to double or treble the value of its capital in other branches of the public credit" (Paterson). The Government could get money more easily when it required it, and on better terms, and was in a much better

position when dealing with an institution recognized by the State than when it had been dependent in times of financial stress on the ability and readiness to help of individual citizens, who were mainly interested in making their own profits on the transaction. The establishment of the Bank strengthened the new dynasty and was a great financial aid to the Government during the wars with France. The public gained enormously from having a form of investment in which they could feel confidence, and William recognized the importance of this and urged upon Parliament the necessity of looking carefully after the public credit, "which cannot be preserved but by keeping sacred that maxim that they shall never be losers who trust to a parliamentary security." Moreover, the people appreciated the power of being able to withdraw money placed in the Bank at any moment, and the certainty that the money they received at the Bank would be of full value; for the goldsmiths had frequently issued clipped coin, even if they did not tamper with money deposited with them, and at the best of times the depositors were dependent on the solvency of the individual goldsmiths. Yet it was not to be expected that an institution of such importance could be started without initial difficulties and without arousing some opposition. The jealousy of the goldsmiths nearly wrecked it in 1696, and the opposition of the Tories, as the Bank was a Whig scheme, led to the attempt to establish a rival institution—the Land Bank—a little later. Even those friendly to the Bank thought at first that it could not be successful with so moderate a rate of interest as 7 per cent., and an institution so closely allied with Government it was feared by many might become an instrument of royal despotism. It was some years before the security of the Bank was generally acknowledged.

CHAPTER VI

LATER STUART PERIOD

At the Restoration all the Commonwealth coins were called in by proclamation, and from this time the coinage tends to become much less complex; many of the mediæval coins, such as the angel, the noble, the smaller silver coins, etc., had entirely disappeared from circulation by 1660 and the coin denominations became those of modern times. In the reign of William and Mary control of the coinage was handed over to Parliament by the King.

The most important change in the gold coinage was the introduction of the guinea. The guinea derives its name from the Guinea Company, formed to trade with the West Coast of Africa, whose charter gave them the privilege of having coins struck at the Mint in gold and silver from metal imported by them. In 1663, when they sent gold to the Mint, they received special permission to have their mark on the coins, and the symbol chosen by them—the elephant, and later the elephant on a castle—was stamped on the coin just below the King's head. Half guineas were struck as well as guineas, and also a few five-guinea and two-guinea pieces. The value of the guinea varied considerably during the next half century. It was intended to take the place of the sovereign, *i.e.*, to represent the value of the silver pound sterling in gold, and until the Revolution of 1688 it was current at 20s In the reign of

William and Mary, when the silver coinage was very much depreciated, its value in silver money rose as high as 30s., and was only prevented by legislation from rising still higher; after the renovation of the currency it fell to 21s. 6d., and in 1717 to 21s., where it remained.

The silver coins issued for general circulation after the Restoration were only the larger denominations—5s., 2s.6d., 1s., 6d. The smaller silver coins, from the groat to the penny, were issued only as Maundy Money, which was first struck in this reign to supply the means of conforming to the old custom of distributing royal bounty on Holy Thursday, and which has been continued ever since. Special marks were placed on some silver coins as well as on the guinea Coins struck from metal imported by the East India Company were marked E.I.C.; coins struck from silver supplied by the South Sea Company bore the letters S S.C.; the stamp of a rose denoted that the silver came from the West of England, whilst a plume showed that it came from the Welsh mines.

The copper coinage was established on a firm basis after the Restoration In 1672 the coinage of copper halfpence and farthings was ordered, and the copper coinage was henceforth the work of the Government, though private individuals were still granted patents by the Government to issue copper coins as in the time of the earlier Stuarts. The traders' tokens, which had until this time been in circulation in defiance of any orders to the contrary because there had been such a dearth of small change, were now declared illegal and disappeared. In the reigns of James II and William and Mary some halfpence and farthings in tin were issued as well at the rate of 20d. for every pound weight of metal. The weight of copper coins varied at first with the price of copper, and was fixed a little later at 92 farthings or 46 halfpence to the pound avoirdupois.

The introduction of a copper coinage supplied a

pressing need, but inconvenience from the scarcity of small coins continued to be a difficulty for a long time, and this caused Locke, writing in 1691, to suggest the coinage of a large quantity of small silver coins below the value of sixpence "to answer all the fractions between sixpence and a farthing and thereby supply the want of small moneys, whereof I believe nobody ever saw enough common to answer the necessity of small payments; whether, either because there was never a sufficient quantity of such pieces coined, or whether because of their smallness they are apter to be lost out of any hands, or because they oftener falling into children's hands they lose them, or lay them up; so it is there is always a visible want of them, to supply which, without the inconveniences attending very small coin, the proposed pieces, I humbly conceive, will serve" Petty on the other hand thought that the coinage of small silver pieces was not to be recommended, because they were so apt to be lost and to be reduced in weight, even by ordinary wear and tear; "little of our old small money," he said, "is now to be seen and our groats are worn away (to the value of) three halfpence in metal"

At the Restoration the method of coining by the mill and screw, which had been attempted in the time of Elizabeth and used during the Commonwealth, and which had been for some time in use in France, was permanently adopted. According to the old method of coining the work was done mainly by hand The metal when mixed with alloy was cast into bars, which were reduced by hammering to the required thickness and cut with shears. To get the impression of the device the means used were "rude and artificial, the sole expedient being to fix one die firmly in a wooden block, and to hold the other in the hand as a puncheon; when by striking the latter forcibly and repeatedly with a hammer the impression required was at length worked up" (Ruding). The

newer machinery consisted of a mill worked by horses, and the upper die was firmly fixed by a screw instead of being held in the hand: this screw "is worked by a fly, and forces that die which is attached to it with considerable effect upon the other die which is firmly fixed below" (Ruding). The improvement resulted mainly from the increase in force, which was now so great as to raise the impression at one blow. As the shape of the coins was now exactly circular, clipping could be more easily detected, and it was not so easy to counterfeit the coins.

After the Restoration the scarcity of money was for a time a great difficulty, and large quantities of gold coins were exported to the Continent. The difficulty was an old one, but it was met now in a new way. Hitherto the Government had made constant efforts, on the one hand to keep pace with the rise of prices by reducing the amount of metal in the coins, and on the other hand to prevent the outflow of money by forbidding exportation of the precious metals and by altering the ratio of gold to silver. Statesmen had now begun to doubt the advantage of this policy of regulation and no longer advocated State control of the mechanism of currency, and when this finally ceased the ratio between the metals was determined only by the natural automatic action of international trade. The object of the Government was still to encourage money to come into the country and to keep it there, but the means used to gain this end were different.

In the first years of the reign of Charles II a last attempt was made to keep to the old system, and proclamations were issued forbidding the exportation of precious metals and the buying and selling of metals at higher rates than those offered by the Mint. These measures proved ineffectual, and the Government, recognizing that the exportation of gold was due to the higher value placed upon that metal on the Continent than in England, determined to bring up the price of gold to the

level of the continental rates. The value of the guinea was consequently raised first to 22s. and then to 23s 6d. Two years later, in 1663, the laws forbidding the exportation of bullion were suddenly withdrawn. "For as much as several considerable and advantageous trades cannot be conveniently driven and carried on without the species of money or bullion, and that it is found by experience that they are carried in greatest abundance (as to a common market) to such places as give free liberty for exporting the same, and to better and increase the current coin of the kingdom . . ." thus ran the preamble of an Act which abrogated the laws regulating the inflow and outflow of gold and silver. This Act, which established free trade in the precious metals, reflects the commercial traditions of Holland, but it was not allowed to be carried out freely, and far into the eighteenth century the Government tried to regulate the supply of the precious metals.

The influence of Holland is seen as well in the Act of 1666 abolishing seignorage The charge for seignorage in 1660 had been 15s. on the pound troy of gold and 2s. on the pound troy of silver , this rate for gold had already been reduced in 1663, and the charge was now taken off altogether, the expense of coinage being defrayed by means of duties levied on certain commodities. The effect was, as had been intended, to encourage the flow of gold to the Mint ; for, as the Mint was now thrown open, any one could bring metal there and have it converted free of charge into coin of a recognized weight and fineness. The effect on silver was not so noticeable, because even the removal of seignorage charges did not counterbalance the advantage gained by sending silver abroad. Hence the result of the change was that gold was now brought in plentifully to the Mint and that the preponderance of gold over silver in the currency was largely increased. For some time gold had been too highly rated in proportion to silver. As early as 1662

Sir William Petty had complained that the country was "pestered with too much gold," and in 1667, when silver, for which the English Mint would only pay 4s. 3d. an ounce, could be sold for 4s. 10d. in France or 5s. in Scotland or Ireland, there was little inducement to bring silver to the Mint. As a result the silver currency was soon discredited. A supply of good silver coins was annually issued by the Mint, but as the debased coins and the old hammered coins, which were mostly under due weight, were not withdrawn, hammered and milled coins were in circulation together, and it was inevitable that the good coin should leave the country and the bad be left behind.

Mun, in his tract entitled "England's Treasure by Foreign Trade," published in 1664, recognized this as the true reason for the dearth of silver money. "Yea, but say some men, If his Majesty raise the money, great store of treasure would be brought into the Mint from foreign parts, for we have seen by experience that the late raising of our gold, ten in the hundred, did bring in great store thereof, more than we were accustomed to have in the kingdom; the which as I cannot deny, so do I likewise affirm that this gold carried away all or the most part of our silver (which was not overworn or too light), as we may easily perceive by the present use of our moneys in their respective qualities: and the reason of this change is because our silver was not raised in proportion with our gold, which still giveth advantage to the merchant to bring in the kingdom yearly gain by trade in gold rather than in silver." Sir Dudley North, in his "Discourse on Trade," attributed the scarcity of coin mainly to the melting down of the new coins as soon as they were issued from the Mint, and thought that free coinage was partly responsible for the difficulty. "I call to witness the vast sums that have been coined in England since the free coinage was set up. What is become of it all? Nobody believes it to be in the nation, and it cannot

well be all transported, the penalties for so doing being so great. The case is plain; it not being exported, as I verily believe little of it is, the melting-pot devours all. Silver and gold, like other commodities, have their ebbings and flowings. Upon the arrival of quantities from Spain, the Mint commonly gives the best price, that is, coined silver for uncoined silver, weight for weight. Wherefore is it carried into the Tower and coined? Not long after there will come a demand for bullion, to be exported again. If there is none, but all happens to be in coin, what then? Melt it down again; there's no loss in it, for the coining costs the owners nothing. Thus the nation hath been abused and made to pay for the twisting of straw for asses to eat. If the merchant were made to pay the price of the coinage he would not have sent his silver to the Tower without consideration, and coined money would always keep a value above uncoined silver, which is now so far from being the case, that many times it is considerably under, and generally the King of Spain's coin here is worth one penny per ounce more than our new money"

By the reign of William and Mary the condition of the silver currency was so bad that internal trade was completely disorganized, and it was evident that a financial crisis was approaching. In 1690 a petition from the working goldsmiths was sent to the House of Commons, complaining that not only the East India Company but divers Jews and merchants had bought up great quantities of silver to carry out of the kingdom, giving for it 1½d. per ounce above the Mint value, which had encouraged the melting down of plate and milled coins, "whereby for six months past not only the petitioners in their trade but the Mint itself has been stopped from coining." The reason for the difficulty was partly the clipping and counterfeiting of the coins that had been going on since the Restoration, partly the expenses entailed by

the foreign wars of William III, partly the policy of the French King, who, finding that silver was scarce in France, raised the ratio 10 per cent., thus encouraging the importation of silver into France As the melting down of milled money resulted in a profit of £25 on every £1,000, it is not surprising that there was very little good silver left in England

Macaulay has given a graphic description of the depreciation of the coinage and of its effects on the country. "The horse in the Tower still paced his rounds. Fresh wagon-loads of choice money still came forth from the Mint and still they vanished as fast as they appeared; great masses were melted down; great masses exported, great masses hoarded; but scarcely one new piece was to be found in the till of a shop or in the leathern bag which the farmer carried home after the cattle fair. In the receipts of the Exchequer the milled money did not exceed 10s in the £100 A writer of that age mentions the case of a merchant who, in a sum of £35, received only a single half-crown in milled silver. Meanwhile the shears of the clippers were constantly at work. The coiners too multiplied and prospered; for the worse the current money became the more easily it was imitated." Many were put to death for clipping and counterfeiting, but severity was of little use, for the number of those who made large fortunes with impunity in this way was considerable, and by 1695 it was a mere chance whether a shilling was worth 10d., 6d, or 4d "The officers of the Exchequer weighed £57,200 worth of hammered money which had just been paid in; the weight ought to have been 220,000 oz. It proved to be under 114,000 oz. Three eminent London goldsmiths were invited to send one hundred pounds cash in current silver to be tried by the balance. Three hundred pounds ought to have weighed about 1,200 oz. The actual weight proved to be 624 oz.

The same test was applied in various parts of the kingdom. It was found that one hundred pounds which should have weighed about 400 oz did actually weigh at Bristol 240 oz., at Cambridge 203 oz., at Exeter 180 oz., and at Oxford only 114 oz. There were indeed some northern districts into which the clipped coin had only begun to find its way. An honest Quaker, who lived in one of these districts, recorded in some notes which are still extant the amazement with which, when he travelled southwards, shopkeepers and innkeepers stared at the broad and heavy half-crowns with which he paid his way. They asked whence he came and where such money was to be found. The guinea which he purchased for 22s. at Lancaster bore a different value at every stage of his journey. When he reached London it was worth 30s., and would indeed have been worth more, had not the Government fixed that rate as the highest at which gold should be received in the payment of taxes." . . . "It may be doubted whether all the misery which had been inflicted on the English nation in a quarter of a century, by bad kings, bad ministers, bad parliaments, bad judges, was equal to the misery caused in a single year by bad crowns and bad shillings. The evil was felt daily and hourly in almost every place and by almost every class. Nothing could be purchased without a dispute Over every counter there was a wrangling from morning till night. The workman and his employer had a quarrel as regularly as Saturday came round. On a fair day or a market day the clamours, the reproaches, the taunts, the curses were incessant, and it was well if no booth were overturned and no head broken. . . . The prices of the necessaries of life, of shoes, of ale, of oatmeal, rose fast. The labourer found that the bit of metal which, when he received it, was called a shilling, would hardly, when he wanted to purchase a pot of beer or a loaf of rye bread, go as far as sixpence. . . . The

ignorant and helpless peasant was cruelly ground between one class which would give money only by tale and another which would take it only by weight."

There were frequent discussions on the matter in Parliament, and as early as 1689 a Committee of the Commons had been appointed to look into the question, but without any result. Lowndes, the Secretary of the Treasury, who was asked to make a report on the matter, fell into the error of thinking that it was possible to alter the value of a coin by altering its name, or, in other words, that the purchasing power of a coin depended upon its name and not upon its real value .—" thus, making the pieces less, or ordaining the respective pieces (of the present weight) to be current at a higher rate may equally raise the value of silver in our coins." He set to work to prove this hypothesis, and his views had a good many supporters; but he found an able opponent in Locke, who had much sounder views on the question and put forward his arguments more clearly and directly than they had been put forward before :—" Raising of coins is but a specious word to deceive the unwary It only gives the usual denomination of a greater quantity of silver to a less (*e g.*, calling 4 grains of silver a penny to-day, when 5 grains of silver made a penny yesterday), but adds no real worth or real value to the silver coin to make amends for its want of silver. This is impossible to be done, for it is only the quantity of silver in it that is, and eternally will be, the measure of its value."

The same year, 1695, a practical scheme, suggested by Montague, was adopted. It was decided that the debased money should be called in and should be recoined according to the old standard of weight and fineness. To secure the return of the money to the Mint a time-limit was fixed, after which no debased money should be legal tender except in payments to the Government, and a further time-limit after which it would not pass at all,

and the Government would only take it at its bullion value. The clipped money would be accepted in payment of the taxes until May 4, 1696, in advances to Government until July 1st, and would cease to be current after February 1, 1697 The Government undertook to give good money in exchange for bad at the full nominal value of the debased coin, hence the whole of the cost of the recoinage would fall upon the national Exchequer

There was almost a panic in the country when the scheme of the Government was known, and the summer of 1696, when the changes were taking place, was a very critical time, for the new money appeared very slowly and the stock of silver money in the country was so reduced that it was only with extreme difficulty that the ordinary retail business of the country could be carried on. The scarcity of money is noted by Evelyn in his Diary.—"*May* 1, 1696—Money still continuing exceedingly scarce, so that none was paid or received, but was all on trust, the Mint not supplying for common necessaries. . . . *June* 11—Want of current money to carry on the smallest concerns even for daily provisions in the markets Guineas lowered to 22s. and great sums daily transmitted to Holland, where it yields more, and other treasure sent to pay the armies, and nothing considerable coined of the new, and now only current, stamp, cause such a scarcity that tumults are every day feared, nobody paying or receiving money." According to the account given by Macaulay, "the manufacturers generally contrived, though with extreme difficulty, to pay their workmen in coin The upper classes seem to have lived to a great extent on credit. Even an opulent man seldom had the means of discharging the weekly bills of his baker and butcher. A promissory note, however, subscribed by such a man, was readily taken in the district where his means and character were well known. The notes of

the moneychangers of Lombard Street circulated widely, and the paper of the Bank of England did much service." It was a period of great anxiety for the Government, but as it was a quiet time in other respects and nothing happened to disturb public confidence, the crisis passed off more quietly than had been expected A free use was made of cheques and credit; Government securities were issued, known now as Exchequer bills, bearing interest at the rate of 3d. a day on £100, and, as the new money was gradually issued and put into circulation, the tension subsided.

During this period debased money was brought in to the value of £4,000,000, and it was found that almost the whole of this money had been coined between the reign of Edward VI and 1662, a proof that practically all the money coined since that date by the new method of the mill and screw had been melted down or exported. New silver money was coined to the value of £6,882,908, thus there was a loss of over £2,000,000, and the total cost of the recoinage to the Government has been reckoned at not much under £3,000,000—an enormous sum, taking into consideration the fact that the ordinary revenue of the country at that time did not amount to more than £2,000,000.

A reduction in the silver value of the guinea took place simultaneously with the reformation of the currency. Some alarm had been felt at the prospect of a sudden fall, and a petition was sent in to the Government by the butchers, graziers, etc, of Smithfield Market, on the ground that they still held many guineas which they had received as the equivalent of 30s each, and that a sudden change in the value would ruin them The reduction was consequently gradual; in February, 1696, the guinea was reduced from 30s. to 28s, and then fell by successive steps until by April 22nd it was fixed at 22s.

The effect of the restoration of the currency was satis-

factory for the moment; public confidence was restored, the foreign exchanges turned in favour of England, and money began to come into the country again. "The merchants in fact saw that the balance of trade was so much turned on our side that whereas we were wont to carry over a million of our money in specie, we then sent no money to France and had at least half that sum sent over to balance the trade" (Burnet). Yet the events of the eighteenth century were to show that, although the Government had carried through with apparent success a task of enormous difficulty, it had effected no permanent settlement of the currency, and difficulties from the scarcity of silver soon began again.